ABSTRACT OF AN

Address

ON THE

INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE.[1]

BY SIR WM. W. GULL, BART., M.D., F.R.S.

GENTLEMEN, FRIENDS, AND COLLEAGUES,—I esteem it a great honour to be deputed to address you on this occasion, and on a matter which promises to contribute to the advancement of medical knowledge by a wider and fuller method than has yet been sufficiently attempted. The subject of my address is the institution of an International Collective Investigation of Disease. This object, I need not say, is intimately connected with the main purpose of these Congresses, if not indeed in the natural course of things an integral part of them. At present we come together as individual cultivators and practitioners of medical science, each contributing his quota to our knowledge on this or that subject which may or may not have been selected for thesis and discussion beforehand. Nor are our labours even under these conditions without excellent results. But a feeling is growing and already widespread, that by a more organised combination, a more intimate and better co-operation, not only the members of these Congresses, but all the working members of our profession throughout the civilised world, might sooner or later be organised into a body of fellow-workers, associated for collecting information on medical questions over the widest area. There is, perhaps, no profession which enforces upon its individual members so strongly as does Medicine the necessity of continued observation and intellectual cultivation, and there is no means by which this cultivation can be so well promoted as by meetings like the present, and by the active organisations in the form of committees or sub-committees which we hope and anticipate may spring from them. The human intellect in its single and separate operation may produce wonderful results. Yet isolated as a man may seem to be in the intellectual labour which occupies him, he makes but little progress apart from the aid and co-operation of other minds which have worked and are working in the same direction. And though doubtless it will always be the privilege of the highest intelligences to clear the boundaries of knowledge and to throw the rays of their genius into the surrounding darkness, yet all must be agreed on the great and almost supreme value of the intellectual co-operation of less gifted minds in the simple observation of facts, and especially when the needed facts are scattered over a wide field. However much apart, as I say, a man may seem in the work of his intellect, he is really much less so than he seems to be, for as we cannot refer the strength of our bodies to any particular food that we have taken, so neither can we track the thoughts of our minds to the sources whence they may have been fed; and if our social nature has been raised from savagery to civilisation by social combinations, it is even more necessary that our intellectual nature should be helped in its growth and nurture by such intercourse and association as are here presented, and which we now propose further to advance. Our great countryman, Bacon, has not generally been well received in the school of German philosophy, so that I must use some caution in citing him in favour of intellectual combinations in pursuit of the sciences. Still, on thinking over the bearings of collective investigation of disease, I could not but feel that although three centuries have elapsed since he broached this question, and little has been done in it since, we might be about to realise his idea of a Novum Organon, the formation of a new intellectual machine for removing and overcoming the obstacles of our medical progress. The purpose we have before us is no less than this, to enlarge and methodise intellectual co-operation, whereby not only the active but the at present inactive faculties of observation of the wide-spread members of our profession may be combined into one or more lines of energy. I am not unmindful how much this presupposes; how it assumes the combination of exact observation and record, with refined criticism and analysis; how it demands the highest scientific perception, with the humble collection of the meanest facts; how, in fine, it means the development of intellectual combination into many forms of organisation which should be not one but many instruments of research. Such a forecast may perhaps lead us to exclaim, "Who is sufficient for these things?" Yet happily the answer is near; time, though short for the individual, is inexhaustible in the race; the intellect is in its infancy, its powers of growth unexhausted; and to these in their evolution there appears to be no limit. The work to be done is unchangeable, and there are eager and willing workers in all lands, who only need the encouragement and direction of the master-minds of medical science to set them to work. Happily, the phenomena which demand our investigation, though complicated and transient, are, it need not be said, the result of unchangeable laws. The capriciousness of Nature, as we speak of it, is but the weakness of our own sense and understanding, and its so-called mystery and obscurity but the darkness in ourselves. The physiologist and the pathologist have to admit that not even in the caprices of man is there capriciousness; that mental caprices have their organic basis; that the whims, the fancies, and the prejudices of the human mind, not less than the changing activities of the functions of his body, or the revolution of the earth on which he lives, are but the resultants of unvarying laws, unchangeable as the fixity of the stars on which he gazes with wonder and admiration. We may therefore have this encouragement, that when any of our work is done, however small and trifling it may seem, it is done and settled for all time, or at least so long as the laws of organisation remain what they are; that the clearing of a fact in respect of disease will remain an imperishable inheritance of knowledge to those who follow us, so long as there is disease in the world. We may support our labours, therefore, with a feeling of surety that the problem before us is a settled problem, however difficult its solution. Nature will not delude us, however much we may delude ourselves.

A superficial survey of the sections of this Congress shows that the student of medicine occupies a unique position in the pursuit of knowledge. For instance, if I turn the leaves of the programme I find that the section of Anatomy invites attention to cell nucleus and cell division, the lowest unit of organisation; and the section of Psychiatry to the psychic-epileptic equivalent, which, as one will deny, stretches to the other pole of knowledge; hence, surely no man more needs to lay hold of the unchanging idea of law than the student of medicine, as he ranges from one extreme of observation to another. In the international investigation of disease, the prevalence of mental disorders in different nations will be a subject of inquiry. Also the forms which these maladies take, according to nationality, occupation, stratum of society in which they occur, &c.; the use of stimulants—alcohol, opium, hemp, tobacco, &c. This work obviously lies not only in the physical and physiological conditions of life, but in their intimate correlatives, the facts of psychology. The thoughts of the student of medicine must, therefore, range from the atoms that build up the textures to the hopes that make the man; and even, perhaps, further than this, for in most of us the unsatisfied mind cannot answer itself with the measurables and ponderables of physical science, however much it may admit that all else is dependent upon them, but will strive to go behind appearances and feelings to the substratum of their existence, and cannot find rest for its foot until it traces their relation to an unchangeable first cause. Du Bois Reymond might well remark that the problem of organisation would be comparatively easy if it were unattended with feeling and thought. That it would then, as it were, present us only with an astronomical problem in which the atoms of things would, after the manner of the heavenly bodies, move on in their several orbits in lines which science might hope to deal with. For it is within the scope of science, even as we now understand it, to track an atom of oxygen, nitrogen, hydrogen, or carbon through its synthesis in a plant to its combination in the elements of brain or muscle, and still on to its resolution and return into its original form, with corresponding evolution of force. But when this shall have been done, we have learnt nothing of pain, nothing of emotion, nothing, indeed, of the science of many of the common facts with which medicine has to deal every day.

[1] Delivered at the International Medical Congress, held at Copenhagen in August, 1884.

How different would be the problem for the physician if disease were unattended by pain or emotion, if the patient were indeed patient as unorganised materials are; if there were no hopes or fears on the part of the object to be dealt with, and no embarrassment on the part of the practitioner from desire to please as well as to heal! Quacks would then be banished to limbo. The course of nature could be watched until the equilibrium of health was attained, and the temptations to polypharmacy would be no more. But then, on the other hand, we should have nothing to do with life in its higher form, which is our ever-abiding problem, and we should miss the stimulus of affection, which, like a constant trade wind, carries us forward—at least the majority of us. If for these preliminary remarks I need any apology, might I not say that I have come from the country of Newton and Harvey, that I have travelled by the home of Spinoza, and that I am speaking in the presence of the countrymen of Descartes and Leibnitz.

Gentlemen, I do not appear here to-day on my own behalf, but on behalf of the Collective Investigation Committee of the British Medical Association. For some years past, and especially during the last four years, it has been felt that the aims of this great Association might be advanced to a higher point by establishing an organised plan of medical observation amongst its members, and, already, sub-committees to the number of fifty, comprising as many as a thousand members, have been established to carry forward this proposition. I am deputed by the Central Committee of this Association to ask you to-day to extend this combination by establishing an International Committee for the Collective Investigation of Disease, and I trust this may commend itself to the Congress. Such an International Committee would have objects entirely germane to the recognised purposes of the Congress itself. Probably one might go even further, and say that such an International Committee should form an integral part of these International Medical Congresses, and that their operation would in time become one of the most fertile sources of international medical advancement. I am happy to think that but little argument will be required in this assembly to commend this proposition to your favour. Already in Berlin the Verein für innere Medicin has adopted the principle, and has established a committee after the pattern of the British committee, to carry forward the work. The President of the Society, Professor Frerichs, has given his entire adhesion to the movement, and Professor Leyden has accepted the presidentship of the committee itself, which includes also very distinguished names; and I hope that one or more of our colleagues from Berlin will to-day add a few words in favour of the proposition I am called upon to make. In putting arguments forward for the establishment of a National Collective Investigation in its more limited form, it was permissible to insist upon minor advantages to be expected from such association—I refer to its educational value, since it could not but happen that every co-operating member would learn much from the investigations proposed; and that whilst he promoted science he would no less promote his own intellectual status. Amongst the subjects suggesting themselves to us in England in near relation to this matter was the formation of life-histories and family-histories in respect of disease, and these could only be obtained through the family physician. If such histories could be widely and accurately recorded, the natural associations of different forms of disease in individuals and families would be made evident, and might afford suggestions as to pathological relations not now suspected, relations between diseases which are separated in Nosological Treatises but associated in Nature. This mode of inquiry, through family history, would open a wide page for the record of the *pathology of ailments;* a page than which there is none more interesting to the practitioner of medicine, since seven-tenths of his work and perhaps more than this lie in efforts to correct physiological deficiences and to maintain some near approach to the equilibrium of health, which a feeble organism unaided cannot reach. On this part of the field it is that we can study the relations between functional and organic diseases, especially in the range of nervous affections, where the degenerative tissue changes in one individual of a family may be compared with the physiological disturbances in another. It is also in these family histories that we might hope to have elucidated the difficulties of *correlated pathologies.* Why, for instance, in a numerous family, whose members are living under the same conditions, one or two should become the subjects of pulmonary phthisis, one or two the victims of rheumatism, another of epilepsy, whilst the others maintain a healthy equilibrium. If such a history should be repeated in ten thousand families or in a hundred thousand, we surely might hope, by careful collation of the facts, to come to the groundwork of these differences, and to determine the rule which separates the epileptic and the rheumatic from the inroads of phthisis. So much for the more limited though not less important advantages of National Collective Investigation, but in an International Collective Investigation the ground widens very much, not only from the different intellectual characters of its working members, but also from the greater variety under which disease presents itself.

The first gain, no doubt, will be from the intercourse and reaction of different national modes of thought, with and upon each other. It need not be said that the ways in which any subject may be viewed do not depend upon the subject itself, but upon the varied capacity of the minds brought into relation to it. Minds evolved during ages under special local and national conditions, and education in lines of their own, cannot fail to give new direction and shape to the questions proposed for solution. All will admit that in the daily routine of practice facts are occurring that are worthy of record, and that medical science loses much by the want of such record. By the combinations proposed, what are now casual and wasted observations would be methodised and stored for arrangement, comparison, and deduction. The English Committee has proceeded as follows:—Having first determined certain subjects for collective investigation, cards of queries have been framed and distributed through the different sections, leaving each member to select such subject or subjects as he might prefer.

The clinical subjects which at present have been selected are acute pneumonia, chorea, acute rheumatism, diphtheria, and inherited syphilis. Cards of queries have been issued on each of these subjects, and each card is accompanied by a memorandum stating the object of the particular inquiry, and directing the attention of the observer to the queries proposed. These memoranda are of the first importance in this movement. It is on them that our hopes of success must be grounded. It is intended that they should indicate the defective state of our knowledge in the subjects brought forward for investigation. In doing this their value to the profession, and to the progress of our knowledge, is almost incalculable. It is no small matter to have set before us in a simple manner what the present state of our knowledge is, the defects which have to be made good, and the inquiries likely to lead to such a result. Text-books on medicine will herafter have to follow something of this leading. Hitherto, and for the most part, they have aimed too much at satisfying the reader, and, in order to make the treatises complete, have assumed a knowledge both in pathology and therapeutics too little justified by fact, and so have hindered, rather than promoted, our progress. These memoranda are intended to be critical suggestions and suggestive criticisms on the state of knowledge respecting the subjects brought forward; they are the centre of the proposed system. It may fairly be expected that each issue of them will be more exact and incisive. The successful framing of them is the one important object to be attained. Through them the influence of the more advanced intellects in the profession will extend through the whole of it, and will reach its most scattered and distant members. Nor can we doubt but that there will be a reaction from the periphery to the centre, maintaining a living cycle of active mental co-operation. Who can limit the effect of such action and reaction, or deny that there will thus arise new energy and new genius? for, happily, the cultivation of science need not remain the privilege of professors and teachers, but may become the common inheritance of all.

The volumes I hold in my hand are the first published records of the collective investigations in England. They contain reports and memoranda on the communicability of phthisis, acute pneumonia, chorea, acute rhematism, and diphtheria. I would refer, by way of illustration of my remarks on memoranda, to the memorandum on acute rheumatism. This recites our deficiencies on the etiology of this disease, and might also include its pathology; the exceptional ways in which rheumatism occasionally developes; its probable relation to the state of the nervous system; the new aspect of the pathology of joint-affections in relation to the spinal cord; the relation of the intensity of the rheumatic affection to anæmia; its clinical relation to tonsillitis; the intercurrent affections of the skin; and, last, but, un-

happily, not least, the treatment. I might add, however, not as a criticism but as a suggestion, than an exhaustive memorandum on acute rheumatism, showing the real state of our knowledge respecting this disease in all its relations, and the more than vagueness of our treatment of it, would have a value which I should find it difficult to express. Long-standing prejudices, which for the most part are entertained and fostered as if they were established and confirmed experience, would go down before the exposition of such a memorandum and its results in international collective investigation, as dry leaves before an autumn wind.

Whilst our English Association has, as I have described, put forward several subjects for collective inquiry with the memoranda and questions I have named, our German colleagues have determined upon a somewhat different method. They have selected but one subject for investigation, thinking it better to exhaust that before taking up a second or third; and they have naturally selected a subject which at the moment prominently occupies the attention of the profession in all lands—I mean pulmonary phthisis. Upon this they have proposed four points for solution: (1) The heredity of the disease; (2) the communicability of the disease; (3) the cure of the disease; (4) the transition of pneumonia into phthisis. These propositions are accompanied with many questions of detail which I will mention presently. The English Committee, at the beginning of last year, also proposed as a question for Collective Investigation the communicability of phthisis, and have reported upon it. The German inquiry is not yet reported upon. The important discovery of Koch that there is a specific organism associated with pulmonary tubercle, and his infection experiments, have naturally excited the greatest interest respecting the communicability of the disease. It is well known that at different times and in different ways the contagiousness of phthisis has been confidently believed in; and, as Professor Ewald remarked at a meeting of the Verein für innere Medicin, observers in America, in England, and in Germany, have supported the belief in the contagiousness of phthisis by important records respecting it. Still, until Koch's discovery, the professional mind was very much asleep about it, or with only now and then a half-waking dream. The English Collective Investigation Committee have put forward the question of communicability in the simplest form, "Yes" or "No;" as follows: "Have you observed any case or cases in which pulmonary phthisis appeared to be communicated from one to another? Please answer Yes or No." It will be observed that this is not a mere voting question as to a man's belief, but whether he has observed any case or cases of the apparent communicability of the disease. "Out of the 1078 members of the Association who returned answers to the questions issued on this subject, at least 261 believed they had seen cases of phthisis which have originated in communication from one person to another; about 39 more have seen cases which have made them doubtful whether phthisis may not be so communicated; while 105 have offered facts and arguments which seem to them to negative such a view. One hundred and fifty-eight of the affirmative returns refer exclusively to cases observed between husband and wife. Communication between husband and wife is mentioned, together with other cases in 34 of the remaining returns. So that 192 observers report cases of supposed communication of phthisis occurring between husband and wife." There are also a number of special returns where the disease seems to have spread from patient to nurse, and from friend to friend. I am not here of course to discuss the pathology of phthisis or of its communicability from person to person, but to argue for the advantages of collective research. And, perhaps, no subject could be selected better to demonstrate these advantages than the supposed contagiousness of phthisis. By extending the inquiry over a wide area, the recurrence of striking cases of apparent communicability are repeated over and over again, and must naturally impress the mind more than a case or two occurring in individual experience. The Committee, therefore, justly remark in their report, that they hope that this first step in collective investigation into one of the most important questions connected with the etiology of phthisis will be of value in leading to more open-mindedness in the discussion of disputed questions of experience and observation. We shall await with interest the report of the Berlin Committee, for its Cards and Queries is much beyond that of "Yes" or "No." It presents seven sections:—(1) General questions as to the history of the family of the patient the subject of phthisis; (2) Antecedents of the family; (3) Previous diseases of the patient, as, for instance, whether of phthisical habit or not, what diseases preceded the development of phthisis, as scrofula, measles, whooping-cough, chlorosis, &c.; (4) On the question of heredity follow queries on health of parents: Either dead of phthisis, and when? Have they suffered from scrofula, disease of the bones, lung diseases not phthisical, as pneumonia, pleurisy, gangrene, bronchitis, &c.? Were the grandparents or parents related in blood? Age of father or mother at the birth of the patient? Were they sober or not? &c.; (5) On contagiousness or communicability—was the disease taken from husband by wife? or from wife by husband? when the malady began? was the communicability between brothers and sisters, or relatives or servants? was the contagion from residence in prisons, establishments for the insane, barracks or infirmaries, &c.? was the infection by residence, clothing, or beds? by nourishment, as through the milk of scrofulous animals or consumptive nurses, &c.? (6) On the curability, including only such cases where at least two years had elapsed from the beginning of the disease—where did the arrest or cure seem to begin? did this come from the improvement of the general condition? are cough and expectoration gone? have the physical conditions altered, and in what way, &c.? (7) On the transition of pneumonia into phthisis—the day of the beginning of the pneumonia? its seat, as at base, apex, or middle of lung, &c.? right or left lung? expectoration—sanguineous? rusty? grass-green, &c.? signs of re-convalescence? when the first signs of tubercle occurred? &c. &c.

In the time at my disposal it is impossible to sketch, even in outline, the number of subjects which claim attention. The committees of the different sections, as the work progresses, will select their subjects from their own point of view; some with a broader purpose will take the more common maladies, and the more curious the rarer ones. One of our English colleagues would have concise descriptions of rare maladies, prepared as an entomologist would have them prepared, of newly-discovered insects, printing distinguishing features in italics. He instances rhinoscleroma; Hebra's prurigo; morphœa; Alibert's keloid of scars; Addison's disease; Hodgkin's disease; cretinoid state in the adult (myxœdema); congenital absence of special bones (such as radius and tibia, with associated portions of carpus or tarsus); cases of spina bifida, illustrating either results of treatment or survival without it; cases of sacral tumour; cases of the recurring iritis in young persons; aneurysms in the orbit; the osteitis deformans of Paget; disease of joints in ataxy; (Charcot's joint disease); non-malignant growths in the tongue; hemiglossitis; and Kaposi's disease.

The arguments for these more curious inquiries are not far to seek, since diseases which are rare in some countries may be frequent in others, and by their frequency afford the required ground for the study of their pathology. I might instance the glandular and elephantoid diseases of China, and the successful labours of Manson and Mayers, which have traced them to the presence of the *filaria sanguinis hominis*, producing lymphatic obstructions and filarial thromboses. The elucidation of such a piece of pathology, though the disease be limited to China, must have a good influence on the whole medical mind in breaking down preconceived opinions, and in showing that we cannot go too far a-field for our knowledge. It supplies, moreover, a further argument for the International Collective Investigation of Disease.

Gentlemen, whilst I thank you for the favour with which you have received this address, I cannot but express my deep sense of the imperfect way in which I have set forth the greatness and importance of my subject. I can now but commend the matter to your good efforts, assured that, through them, success will not be wanting.

PETITION FOR INCORPORATION.—A petition has been presented to Her Majesty in Council by the Earl of Jersey and others, and the Chancellor, masters, and scholars of the University of Oxford, praying for the grant of a charter for the incorporation of the president and governors of the Radcliffe Infirmary, Oxford. They have been referred to a Committee of the Privy Council, by whom they will be considered on September 25th. A petition has also been addressed to Her Majesty in Council by Dr. Henry J. Littlejohn and others, praying that a charter of incorporation may be granted to the Queen's College, Edinburgh.

ABSTRACT OF A

Lecture

ON THE

REARING OF HAND-FED INFANTS.

By EDMUND OWEN, F.R.C.S.,

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ON August 1st Mr. Edmund Owen delivered a lecture on this subject at the International Health Exhibition. The chair was occupied by Dr. Charles West, who, in introducing the lecturer, made an eloquent address upon the sacred duty of mothers suckling their own infants. He severely criticised the system of wet-nursing, by which one infant was robbed of its birthright for the sake of another, whose wealthy and indifferent mother might be shirking her responsibility from mere indolence.

Mr. Owen remarked that probably almost everyone would agree with the truth of the general proposition, that for the first half-year of infant life the mother's milk should be the only food for babes; but where a poor woman has to leave her infant in order to earn money for the support of her husband, or where the lady of fashion finds that the claims of society are so strong as to efface the sweet duties of motherhood, the question had to be answered as to the best artificial food. The physiological chemist brought in his answer: having made an analysis of human milk, he prepared a patent food which, he thought, ought to be even superior to the original article; but his compound was never absolutely fresh, and, when reared on it infants were too apt to grow weak and flabby; most likely it contained some starchy element which found no representative in human milk; he might almost as well put in fine sawdust.

The lecturer said that he was apprehensive lest preserved milk should entirely usurp the place of fresh milk in the nursery. At present it was far too widely employed, and he entirely failed to see how it could form a more wholesome diet for infants—as some maintained it did—than the fresh article. He could no more believe this than that the adult would thrive better on tinned American meat than on fresh sirloin. For babies, cow's milk, which should be always fresh, should be mixed with an equal or *even greater bulk* of warm water, in which a lump of white sugar and a pinch of salt had been dissolved; the fresh milk was an excellent antiscorbutic, and was therefore always needed. Often, when he had been assured that cow's milk could not be retained by the infant stomach, he had been able to demonstrate to the contrary by mixing even as much as double the quantity of water with it. In summer lime-water might be added to the mixture.

As regarded feeding-bottles, Mr. Owen said that the old-fashioned long straight one, with the short indiarubber nipple, and with no tube at all, was the best; and he wished that, in their search for the antique, mothers would revert to the use of the ancient feeder. With this the infant could be fed only when the nurse had the bottle in her hand, so that the child's meals would be given at regular intervals and for a definite time, and under close watching. The very worst kind of feeder was that now in general use; he had heard it called by one well competent to form an opinion on the matter "the lazy nurse's bottle." It was not so easily kept clean as the slipper-bottle, and was liable to many and serious abuses. Infants should be fed at regular intervals, and if they vomit after their milk, they should be fed on smaller quantities, given at shorter intervals. As a rule, for the first month the bottle should be given every two hours, gradually increasing the interval to three and eventually to four hours. As time went on, less and less water should be added to the milk. Too often infants were fed simply because they cried. True, the infant has "no language but a cry," but the cry may mean that the stomach is already overloaded. Before the end of the first year infants should be entirely weaned from the bottle; they should then have daily a little undercooked meat pounded into a pulp, to which some gravy and salt have been added. Potato finely mashed and covered with gravy, an egg, or a little milk pudding, may vary the diet. But on no account should they be allowed any wine, beer, tea, or coffee, though they may have cocoa and milk. The meals should be given regularly; children should not be allowed to "pick" at bread-and-butter, cakes, and sweetmeats in the intervals.

Having criticised unfavourably the absurd fashion of bunching all the little child's clothes around the middle of its body, the lecturer pleaded that here, at any rate, there was great need for a "scheme of redistribution." The body should be evenly covered. Children could not be hardened by cold baths or by any other exposure to cold; only the very fit could survive such severe treatment. Like flowers and fruit, they loved warmth and sunlight; and when he had a sick child under observation he made it one of his first cares to have the cot placed in a sunny part of the room. In England people did not seem to know the value of sunlight; the Italians did, however, and their common saying was to the effect that "where the sun does not go the doctor does." The sun's rays have a destructive influence on suspicious or baneful gases; but to such vapours children should never be exposed. No bath, sink, or closet should be allowed near the nursery; many children fell victims to a neglect of this first law of domestic sanitation. Everything about them should be sweet and fresh, and there should be no carpets nor bed or window-hangings to interfere with the free circulation of the air. On no account should the infant be taken to sleep in its mother's bed; the coroner for Central Middlesex holds a hundred and twenty inquests every year on infants who have thus perished. If the weather be very cold, a warm brick or bottle wrapped in flannel might be tucked in under the clothes of the cot. For ensuring appetite, digestion, and sleep, the infant should be taken out of doors each day when the weather is fine; and every day, unless a bitter wind is blowing, or it is foggy, the window should be thrown open for a while, as fresh air in the house is an absolute necessity. A well-managed babe should close its eyes as certainly as does a mechanical wax-doll as soon as it is laid down for sleep. The small hours of the night and the unhappy husband need never be disturbed by cradle-songs and lullabys. It was only a home-sick sugar-planter who cried "Rock me to sleep, mother!" and probably if an infant could speak it would never be heard repeating the request.

In conclusion, the lecturer likened his discourse to a badly-made net, in which the irregularly-sized meshes were represented by the many faults of omission and commission. Still, he did not fear the net breaking under the test of practical experience. Indeed, the greater the strain it was thus called upon to bear, the more productive would he consider this his cast. And he was of opinion that if the great Health Exhibition did nothing more than direct public attention to the unsatisfactory environment of hand-fed infants, history would still be fully justified in regarding it as one of the most important national successes of the nineteenth century.

THE PATHOLOGY AND TREATMENT OF CHOLERA.

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THE subject of cholera in all its relations has, from its near approach to our shores, become of pressing importance. Great attention has been properly given to its etiology and prophylaxis; but as, notwithstanding all our efforts, we may not succeed in keeping the enemy at bay or combating him at long range, as he may possibly break into our camp and challenge us to a hand-to-hand encounter, it is all important that we decide with what weapons we shall be armed for the fray. As matters stand, there is no reliable programme, no authoritative pronouncement by our medical corporations, as to the best method of procedure; and thus it falls to the lot of individuals to formulate their views and to advocate their adoption, on the grounds of practical experience or scientific teaching. But that I have had lengthened experience in the treatment of cholera, dating from its second advent in this country up till its latest appearance, having been pupil and assistant to my venerated friend Dr. Henry MacCormac, in the Belfast Cholera Hospital, and because I have some important observations of an original nature to submit, I should not possibly have undertaken the present task.

Whatever the primary or the remote cause of an attack of cholera, whether miasm or bacillus, the influence of the nervous system becomes rapidly manifested. The prominent symptoms of purging and vomiting appear to be due to an abnormal condition of the nerves supplying the stomach and bowels; the choleraic voice, the vertigo, tremors, and muscular cramps betray their nervous origin; the symptoms of collapse are evidently caused by great irritation of the sympathetic system; while to the influence of the vaso-motor system may be attributed the depression of the functions of respiration and circulation—the chief dangers of the disease. We may recognise additional evidence of nervous agency in the sudden deaths which occur in every epidemic, when men are stricken down fatally after one or two hours' illness, as if poisoned by prussic acid or the concentrated virus of the upas tree, and in those rapid recoveries that we often witness, forbidding the idea of any serious complication or organic affection having caused or accompanied the most lethal symptoms. Under such circumstances, it is evident that our exertions should be directed towards combating the nervous factors in the disease.

The disease and its treatment naturally divide themselves into three stages: the preliminary, or diarrhœal; the stage of violent purging and vomiting, and cramps; and that of collapse.

For the diarrhœa nothing in my experience answers so well as dilute sulphuric acid, which should be administered every hour in doses of twenty to thirty drops in some agreeable menstruum, with mustard or turpentine epithems to the abdominal region, and iced water when available *ad libitum*. Should the second stage supervene, it is necessary to take decisive steps lest the third rapidly develop.

It is in the second stage that my peculiar experience becomes available. Physiologists teach that the phenomena of vomiting and purging depend altogether upon the nervous mechanism of the organs affected. According to Michael Foster, "the dilatation of the cardiac orifice is caused, in part at least, by efferent impulses descending the vagi, since, when these are cut, real vomiting with discharge of the gastric contents is difficult, through want of readiness in the dilatation. Since the vagus acts as an efferent nerve in causing the dilatation of the cardiac orifice so essential to the act of vomiting, it is difficult to eliminate the share taken by the vagus as an afferent nerve carrying up impulses from the stomach to the vomiting centre" (pages 275-6). The influence of the vagus is thus demonstrated in the act of vomiting, both as an afferent and an efferent conductor of nervous energy. Kolman, too, quoted by Hall,[1] has shown that the right pneumogastric supplies the whole of the small intestines. "This is an inhibitory nerve," he says; "and Moreau and Lauder Brunton have demonstrated that the division of all the nerves going to a portion of intestine is followed by the secretion of a fluid just like rice-water stools of cholera. May not the stimulation," Hall continues, "of the inhibitory vagus be followed by results much the same as if the sympathetic supplying the small intestine were paralysed?" In accordance with these physiological views, I have latterly treated every case of English cholera in the second stage by remedies applied to the pneumogastric nerve in the cervical region, with the satisfactory result of putting an end at once to the profuse vomiting and purging so characteristic of this stage. Arguing from its controlling effect in extreme cases of English cholera and cholera infantum, which our best authors say differ only in degree from the Asiatic type, I have every confidence that it will prove equally useful should the latter epidemic gain a footing in this country. There is another important indication, which will be subserved by counter-irritation over the vagus—viz., the restoration of the cardio-inhibitory function of that nerve; thus the violent contraction of the heart will be controlled, the expansive power of its cavities restored, and the congestion of the pulmonary and arterial system put an end to. The application I have always used is the epispastic solution of the Pharmacopœia applied freely with a brush behind the ear and in the neck as far as the angle of the lower jaw. No matter how violent the vomiting or purging, I have never failed in stopping both by this application; a stimulating effect is produced at once, and with it all gastric disturbances cease.

For the stage of collapse, which, according to Claude Bernard, is due to great irritation and hypertrophy of the sympathetic nervous system, Dr. Hall, who has seen a large amount of cholera in India,[2] proposed to the Royal Medical and Chirurgical Society of London, on October 13th, 1874, a plan of treatment which received the approval of the Society, as well as of Sir Joseph Fayrer, who was present. He recommends the subcutaneous injection of a solution of chloral hydrate, 10 grains in 100 parts of water, in four or five different places, according to the size of the syringe. If reaction does not commence in an hour, he injects again. The sedative soothes the contracted nerves, and relaxes the contracted vessels; the blood is once more uniformly distributed, and consequently the pulse reappears at the wrist, the cramps and abdominal pains subside, sleep is induced, the respiration becomes regular, the discharges lessen, the face fills out, the voice becomes stronger, and the natural secretions are restored. Mr. Higginson, in his report to the Deputy Commissioner at Keri, Oude, states that he has treated nineteen cases of cholera according to Dr. Hall's method, of whom seventeen recovered, being about 89 per cent of cures. For purposes of illustration I append a statement of two cases out of many which I treated during last autumn.

CASE 1. *English Cholera.*—Constable C—— sent for me on Sept. 18th, 1883, at 8.30 A.M. I found him in the act of vomiting, with small quick pulse, violent cramps, forcible palpitation of the heart, great debility, faintness, and coldness of the extremities. He was purged at frequent intervals, and the dejections were of the rice-water character. He informed me that when on duty in the police-cells at 4 A.M. that day, he was attacked with profuse vomiting, followed in an hour by violent purging, with cramps, an attack occurring about every fifteen minutes. I did not order him any medicine, but painted him at once in the hollow behind the ears down to the angle of the jaw with an epipastic solution, assuring him that he would not have any return of his symptoms. I visited him again at 10.30 A.M., and found him quite convalescent, not having had any sickness or suffering, as I predicted.

CASE 2. *Cholera Infantum.*—On Sept. 24th, 1883, I was summoned to see a child living in Upton-street, Belfast, aged twenty months, at 11.30 P.M. I found it lying on its face across its mother's knee, with its arms and legs lying listlessly at either side; it was purging and vomiting at the same time. The child was almost pulseless, and was cold and feeble. The mother informed me that it had sickened at 6 P.M., and that it had vomited at least every quarter of an hour till the time of my arrival. She attributed its illness to a mess of soup which it had taken the previous day. She had administered milk with lime-water without any benefit. I did not recommend any medicine, but, having had the child placed on its back, I painted it with the blistering fluid behind both ears, informing the mother that from that moment both vomiting and purging would cease. Soon after the application of the remedy the child began to improve, the heat returned to the extremities, and at the end of half an hour it was fast asleep, when I left for the night. Calling at 10 A.M. the next day, I saw the child in its mother's arms looking quite lively and well. As I foretold, both vomiting and purging had instantaneously ceased.

There is no need of multiplying examples; these two are the representatives of a great number, irrespective of cases of bilious vomiting and gastritis from alcoholism, similarly and successfully treated.

In the cases related I applied the remedy behind both ears; in several others I found the single application behind the right ear sufficient for the purpose; and this appears to me preferable to the double blister, as, from its powerful inhibitory effect upon the heart as well as upon the abdominal viscera, the modified application is perhaps the safer. In these cases of severe suffering anyone can understand the satisfaction that is felt when he is justified in saying, "Permit me to apply this external remedy, and all your troubles will at once depart."

[1] British Medical Journal, vol. ii., 1874, p. 600.

[2] Ibid., vol. ii., 1874, p. 554.

THE LOWER THAMES VALLEY SEWAGE.—On the 4th inst. Sir Charles Dilke signed a minute ordering a general inquiry into the drainage of the Lower Thames Valley, which has been rendered necessary owing to the Select Committee of the House of Commons having rejected the scheme of the Joint Board for the Drainage of the Lower Thames Valley.

THE MENTAL ELEMENT IN THE ETIOLOGY OF GOUT.

BY J. MORTIMER GRANVILLE, M.D., M.R.C.P.

RATHER more than three years ago[1] I drew attention to this interesting and important subject. At that date the *rôle* of the cerebrum in the development of gout was scarcely recognised, and the part which the nervous system, as a whole, plays in the malady, although beginning to attract attention, had scarcely asserted its claim to consideration. A communication from Dr. Dyce Duckworth, made to me subsequently to the appearance of my letter in THE LANCET, brought to my knowledge the fact that he had discussed what I may, perhaps, call the cerebro-spinal hypothesis with his well-known care and ability. Other English writers, of course, had treated the subject from the neurological standpoint, but Dr. Dyce Dukworth's concise paper cast the facts and deductions in a practical form with great perspicuity. During the last three years progress has been made in the physiology—I will not use that unsatisfactory and misleading term *pathology*—of the disease, and I think I may now fairly claim that the view I dared to propound—namely, that a uric acid centre, either eliminative or destructive (Bernard or Pavy, in principle, *mutatis mutandis*) exists, and is, probably, located beneath the floor of the fourth ventricle, not far from, and in functional relation with, the so-called "diabetic" and polyuric centres. On the Continent and in America, if not yet in England, my view is accepted. My present purpose is limited to the recognition of two clinical facts and the making of one therapeutic suggestion.

An "attack" of gout is particularly likely to occur, in the gouty subject, at either of two mental or cerebral crises. First, on the eve of a great mental effort, when the brain is, as it were, charged to the highest point of tension with what, for want of a better term, we call nervous energy. The type of a paroxysm so occurring is likely to be "nervous," with severe neuralgic pains, if the patient be neurotic, or visceral in the sense of attacking one of the large organs if he be robust and of an active habit. Second, an attack of gout is likely to occur at the end of an intellectual effort, when the centres are exhausted; and in this case it may take the form of an epileptiform fit or syncope, followed by a more or less prolonged depression; or it may rapidly develop into a formulated arthritis of the ordinary type. In the break down before action I think the cerebral strength itself gives way; while in the paroxysm after exertion the attack occurs because the inhibitory control of the cerebral centres over the medullary, spinal, and organic centres is suddenly suspended. The attack of gout has, so to say, been kept in abeyance during the period of cerebral activity, and breaks out immediately this ends. The former class of cases is the most serious, and attacks of this class go far to prove the existence of a neurosis, for which the patient will require to be specially treated. The second class of cases is one in which the malady proper, rather than the patient, if I may so express myself, demands the practitioner's greatest attention.

The therapeutic suggestion I have to make is that the treatment of gout in all its forms should be based on the recognition that the uric acid can only be got rid of by a process of oxygenation, and that it must pass off by the kidneys, never by the bowels. Purgatives in gout are always harmful in direct proportion as they promote the discharge of fluid from the intestinal surface and leave the renal secretion concentrated, so that the uric acid, which requires a very large proportion of fluid for its solution, blocks the tubes of the kidneys in the form of crystals. One reason for the specially frequent occurrence of these attacks in warm weather is the loss of fluid by perspiration, and consequent concentration of the kidney excretion. If uric acid can crystallise, it *will*. I would only add that I am obtaining marked and satisfactory results in acute and subacute gout from the use of the following mixture. It relieves the pain almost immediately, reduces swellings, and raises the proportion of urea in the urine—as readily estimated by the hypo-bromite test—from 50 to 100 per cent. in a few hours. I *never* use colchicum, and I do not get either organic complications or serious depression. I do not starve my patients, or cut off their supplies of nitrogenous food; because I believe a vigorously trophic state is physiologically necessary to facilitate the oxidation of the uric acid, and to secure the due and rapid elimination of the products of disassimilation, as urea. I have now employed this formula in a very large number of cases, and with so much success, that I cannot hesitate to urge its consideration on my fellow practitioners:—Ammonii chloridi, ʒiv.; potassæ chloratis, ʒij.; glycerini, ʒxii.; tincturæ iodi, ʒij.; aquæ ad ʒxii. Misce. Fiat mistura, cujus sumantur cochlearia duo magna tertia, quarta, vel sexta quaque hora.

Welbeck-street, W.

[1] THE LANCET, April 23rd, 1881.

CASE OF

TETANUS TREATED BY HYDRATE OF CHLORAL; RECOVERY.

BY JAMES TAYLOR, F.R.C.S.,
SENIOR SURGEON TO THE CHESTER GENERAL INFIRMARY.

THE following case is recorded for the purpose of showing the power that chloral has over the convulsions of tetanus, and also the extent to which the drug may be given in such cases. Several times during the illness we considered anxiously whether we were justified in administering chloral so freely, but when we stopped it the tetanic symptoms became in a very short time so severe that we were compelled to resort to it again.

Mr. J——, aged forty-two, came under the care of Dr. John Roberts and myself, suffering from a malignant growth at the anus, which I removed on January 31st, 1884. He progressed favourably until February 9th, when he complained of tenderness about the jaws, which he attributed to eating a tough mutton chop. On the 11th he complained of being unable to open his mouth, and his masseters were rigid. Opium was given. On the 13th he was much worse. Any attempt to swallow brought on an attack of choking. The opium was stopped, and fifteen grains of hydrate of chloral given every three hours; in the evening this was increased to twenty grains every three hours. On the 16th, the spasmodic condition being much relieved, the chloral was stopped. On the morning of the 17th bromide of ammonium was prescribed. At 7.30 P.M. he was suddenly seized with violent general convulsions, which occurred every five minutes; his abdominal muscles were completely rigid; during the convulsions he screamed in agony; there was ophisthotonos. twenty grains of chloral were given, and repeated at 8.30 P.M. At 9 P.M. the convulsions ceased, leaving him rigid. The chloral was continued every three hours until the evening of the 18th, when, the rigidity having passed off, it was again stopped.—19th: Cramp in the left side; ten grains of chloral were given. At 11.30 A.M. cramp in the thighs occurred, the hamstrings being very tense; he had twenty grains of chloral. At 8.30 P.M. there was violent trepidation of the legs when he rested on his heels; ten grains of chloral were given every three hours. On the 20th the least movement brought on violent trepidation. On the 21st he was very restless; constant trepidation existed, which was worse in the left calf; heart's action very irregular.—22nd: Very restless; irregularity of heart's action great. Stopped chloral, and gave him opium and carbonate of ammonia.—8.30 P.M.: Heart's action better, but intermittent.—23rd (10 A.M.): Violent general convulsions every few minutes, with great rigidity. Twenty grains of chloral and inhalation of chloroform. The convulsions had somewhat diminished at 12 noon. At 12.45 the chloral (twenty grains) was repeated, and was given every two hours.—24th: Restless and delirious; no violent convulsions. Chloral every four hours.—26th: Has had only slight spasmodic attacks the last two days. Was not to have the chloral unless more severe attacks occurred.—27th: Trepidation very severe, and pain in feet. Chloral thirty grains.—28th: Pulse very irregular. To have as little chloral as possible.—29th: Very restless; tongue very dry.

Until March 4th the patient was obliged to have twenty grains of chloral three or four times daily. Owing to the extreme irregularity of the heart's action and the constant delirium, the chloral was stopped on the morning of the 4th. At 7.30 P.M. he was suddenly attacked with violent general convulsions, and twenty grains of chloral were given; at 9 P.M. the convulsions occurred every few minutes, and

twenty-five grains of chloral were administered. The convulsions ceased in half-an-hour, the extreme rigidity leaving first the left leg, then the right, and then the back. On the 5th twenty grains of chloral were given every six hours. On the 6th and 7th the cramp was troublesome but there were no violent convulsions. On the 8th chloral was given every seven hours, and on the 9th every eight hours. On the 10th the dose was reduced to fifteen grains every ten hours. On the 11th there was return of severe cramp in the abdominal muscles, but twenty grains of chloral relieved it in a few minutes. On the 13th fifteen grains of chloral were given every nine hours, and on the 14th every twelve hours. On the 17th the patient only had chloral once in twenty-four hours. On the 18th there was still pain in in the leg, but he felt much better. The appetite was voracious, but he could not masticate on account of stiffness of the jaw. On the 20th no chloral was administered. Recovery was uninterrupted after this. On the 31st the only remnant of the tetanus was a feeling of weakness in the left leg. From February 13th to March 19th he had taken six ounces and three drachms and a half of chloral.

ACUTE MANIA TREATED WITH HYOSCYAMIN.

BY C. THEODORE EWART, M.B., M.CH. ABER.

I HAVE tried this alkaloid in twelve cases of acute mania, and have found it answer admirably. Although there is nothing novel in what I have to state regarding its action, I thought it might be of some interest to give the following six cases.

CASE 1.—C. A——, male, aged sixty-one; not epileptic. About every fourth month he suffers from delusional mania, which lasts for two months. During this period he is very noisy, shouting loudly or muttering incoherently. He sleeps but little. After these brain storms he becomes quiet and tractable. Thinking that hyoscyamin might shorten the attack, I ordered one grain. Although the sleep produced was very profound, the breathing stertorous, and the paralysis most marked, the pulse throughout was good, beating steadily and regularly. I decided, however, in future to give a smaller dose. The attack was not shortened by any appreciable length of time.

CASE 2.—F. W——, male, aged thirty-six, well-built and muscular. Formerly in the Artillery; served in India for a few years. Has had sunstroke. Is epileptic. Tongue furred and bowels constipated. Is so violent and excited that he has had to be placed in seclusion; struck one of the attendants severely. Ordered three-quarters of a grain of hyoscyamin at bedtime. Was sleeping quietly in ten minutes. Awoke in the morning much quieter, although still suffering from delusions. Gave an aperient draught. Kept in seclusion three days, and then allowed out into the grounds.

CASE 3.—J. C——, male, aged forty-four. Not epileptic. Supposed cause, a fall. Tongue coated, breath offensive, and bowels constipated. Is very noisy and excited. Had to be placed in seclusion. Beat the door continually, fancying he was crushing blackberries. Imagined he had met God and the devil; the latter he knocked down. Ordered three-quarters of a grain of hyoscyamin. Was asleep in a short time. Passed a quiet night; more rational in conversation. Gave an aperient draught. In four days he was allowed out.

CASE 4.—G. B——, male, aged thirty-eight. Supposed cause, religion. Not epileptic. Most noisy and unmanageable; converses in a loud tone with imaginary persons; face flushed; excited expression of eyes; required four attendants to restrain him. Ordered three-quarters of a grain of hyoscyamin. Within a quarter of an hour he was sleeping profoundly, and did not awake till 6 A.M., having had twelve hours' refreshing sleep. More quiet. Had to be fed thrice. Repeated the draught at bedtime. On the third day he was sent to the infirmary ward, as he was suffering from an inflamed knee. Very deluded, but is free from excitement.

CASE 5.—W. E——, male, aged forty-four. Is epileptic. Suffering from an outburst of maniacal excitement, endangering the safety of the other inmates. Placed in seclusion. Given half a grain of hyoscyamin, which produced deep and prolonged sleep. Much quieter on waking. Allowed out the following day

CASE 6.—B. P——, male, aged fifty. Not epileptic. A noisy, troublesome patient at times; broke a couple of mirrors, and attacked the attendants. Placed in seclusion. Ordered three-quarters of a grain of hyoscyamin, causing deep sleep. Awoke in the morning quiet. Allowed out.

It is, I think, the better plan to give a large dose at once than to administer smaller ones at intervals; for in the cases which are most benefited by this drug the difficulty is to get the patient to take more than one dose, and to frequently disturb only tends to make his excitement greater. There is no danger in three-quarter-grain doses, nor is nausea or sickness produced. The pulse at first is very much quickened and stronger, and then gradually gets slower and loses strength. The face is flushed and the pupils greatly dilated by its stimulating action on the peripheral ends of the sympathetic. The breathing is in a few cases stertorous, but in the majority quiet. On waking, spectral illusions are apt to be present. When given in small doses the sleep procured is very restless and disturbed.

The conclusion I draw from the result of the treatment of these cases is, that hyoscyamin is undoubtedly of great service in certain cases of mania where the patient is violent and cannot be restrained. It is certain in its action, quieting the patient within a quarter of an hour after administration, through its effect on the nervous system. The sleep produced is very deep, and the muscular power greatly weakened by its direct paralyzing action on the spinal cord. Whether this drug has any curative effect or not it would be difficult to say; but I imagine it is chiefly through the complete rest produced that its beneficial action is seen. There is no doubt that lengthened sleep in cases of acute mania does good, and the longer a patient continues in an acutely excited state the greater is the danger of permanent mental injury. After repose the patient awakes refreshed, and with greater strength to withstand mental excitement. An objection to the use of hyoscyamin is that it is so very expensive; I am therefore trying the far cheaper sulphate of atropia. The preparation I have used was obtained from the General Apothecaries' Company, and contained four grains to the ounce.

Fisherton House Asylum, Salisbury.

ON A NEW FORM OF INHALER.

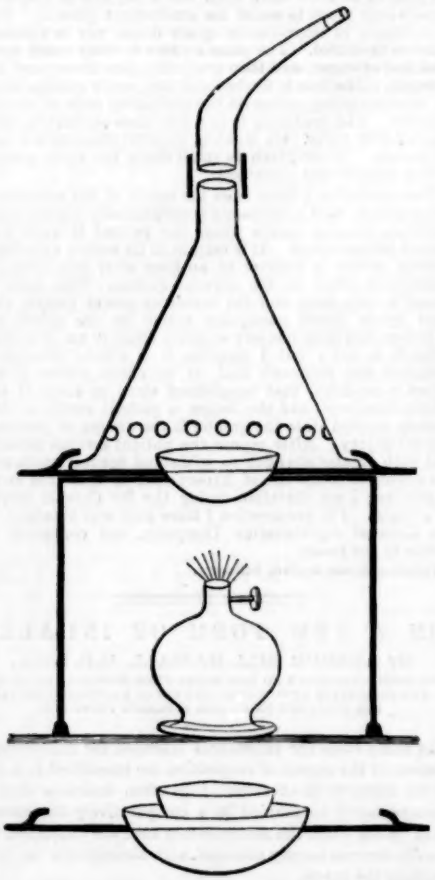
BY ARTHUR HILL HASSALL, M.D. LOND.,
LATE SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL, FOUNDER OF AND CONSULTING PHYSICIAN TO THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION ON THE SEPARATE PRINCIPLE.

IN many cases the substances intended for inhalation in diseases of the organs of respiration are prescribed in a form far too dilute to be effective. It is often desirable that the vapours should be inhaled in a comparatively concentrated state. Even when the medicaments used are undiluted, they usually become largely admixed with atmospheric air before reaching the lungs.

The means at present employed for the volatilisation and inhalation in a concentrated form of the vapours of certain substances are often very defective. Thus iodine and carbolic acid are sometimes vaporised from a porcelain or metal plate placed near the patient; in this way the greater part of the fumes are lost in the air of the apartment, and the small portion really inhaled is diluted many thousand times. I have therefore devised a very simple apparatus for the acomplishment of the object desired. Its several parts are shown in the subjoined figure. It is suited alike for solids and liquids; and when an increase of temperature above that of the air is required, this is obtained by applying the lamp either directly to the capsule containing the substance or through the medium of the small water bath. One great recommendation of the apparatus is its absolute cleanliness. There is no probability, unless it is used in the most careless way, of its becoming contaminated with bacilli, and hence there is no risk of infection or re-infection, such as may happen when flexible tubes and mouth-pieces enter into the structure of the apparatus employed, and especially when more than one person makes use of such an inhaler. Such a contingency constitutes a real danger, and one not usually realised.

The figures almost explain themselves, yet it may be well to give a brief general description. The apparatus

consists of a small spirit lamp, furnished with a fine rack, so that the flame can be nicely adjusted; a quadrangular stand; two pieces of copper sheeting, with a central aperture in each; a small copper water-bath; two small porcelain dishes; a funnel of glass or other suitable material, furnished with openings below for the admission of air; and a glass mouth-piece, which may be used or not, as may be required. The funnel should turn up at the bottom, so as to



allow of its being fastened to the copper plates by two or three simple springs. This apparatus is specially suited for the vaporisation of carbolic acid, creasote, iodine, thymol, eucalyptol, pine oil, and many other substances. The porcelain capsules should have a diameter of 1¾ in.; the water bath 2¾ in.; the base of the funnel 3½ in.; and the length of the mouth-piece should be about 4 in.

San Remo.

REPORT OF A

CASE OF FIBROID UTERINE TUMOUR.

OPERATION; EXTIRPATION OF UTERUS; RECOVERY.

BY JAMES DODD SWALLOW, M.D., M.R.C.S.

MRS. J. W——, aged thirty-seven, resides in the country. She was married eighteen months ago, and shortly afterwards began to notice enlargement of the abdomen, which during the last eight or ten months has become very marked, her general health being fairly good. The catamenia have been profuse, and she has lately become very thin and emaciated. During the last three months she has had pain in the right iliac region, much increased by walking or standing. In the early part of July last she came to London for advice. On examination, I found the abdomen was distended to about the size of the seventh month of pregnancy, and that it contained a large, solid, morbid growth. The outlines of the uterus could be easily defined; it extended upwards to within an inch and a half of the ensiform cartilage, and was perfectly movable, hard, and non-fluctuating. In each iliac region could be felt a mass of about the size of a small cricket-ball. Each of these was movable, and appeared to be either an independent growth or to be attached to the principal tumour by a peduncle. On examination per vaginam, the os uteri was found to be drawn up and tilted over to the right side; the sound passed with difficulty five inches; the uterus was quite movable. The diagnosis arrived at was fibroid tumour of the uterus, with two secondary tumours, one in each iliac region. In consultation with Mr. Sydney Jones (who after careful examination confirmed this diagnosis), removal was decided upon, and this mainly in consequence of the rapidly increasing growth, the excessive monthly loss, the pain, and the progressive emaciation of the patient. On July 13th, the patient being placed under ether by Mr. Osborn of St. Thomas's Hospital, Mr. Sydney Jones operated, antiseptic precautions being carefully observed. The abdominal cavity was easily reached by an incision about five or six inches long. Great care was required at the lower part of the incision, on account of the bladder being drawn up considerably by the growth of the tumour (the base of the bladder was drawn up fully two inches above the os pubis). The bladder was dissected off the front of the uterus, and the lateral connexions of the tumour were divided, after ligaturing with double thread. The neck of the uterus below the large fibroid was elongated, and formed a comparatively narrow peduncle above the os. The enlarged uterus, with five or six pedunculated fibroids, and the ovaries, were tilted forwards out of the abdomen, and the neck was transfixed by a needle carrying a double thread of Belgian twist. The threads were firmly tied, one on each side, and the neck of the uterus divided just above the os. Another strong silk ligature was made to surround the peduncle at the situation of the double thread. Very little blood was lost during the operation. The edges of the abdominal wound were brought together by silk and catgut sutures alternately, and all was securely packed with antiseptic dressings. After the operation a subcutaneous injection of morphia was given, and the patient put to bed. The sickness continued for twenty-four hours. She was ordered to suck ice at intervals, and morphia was injected night and morning; catheterism every eight hours. This treatment was continued until July 16th, three days after the operation, when my note is as follows:—The patient is now free from sickness. Temperature (10 A.M.) 100°; pulse 90. Sleeps well, is cheerful, and has had no pain. There is a bloody discharge from the vagina; no tympanites. Ordered to take a teaspoonful of iced milk frequently, and to suck ice.—18th: The milk, having produced sickness, to be discontinued, and ice alone to be sucked. — 19th: No sickness. Temperature (10 A.M.) 100·2°; pulse 94. Has passed a good night. Ordered to have a teaspoonful of Brand's extract of beef occasionally, and to continue the ice and morphia injections night and morning.—21st: The patient is doing well. Temperature (10 A.M.) 101°; pulse 100. The first dressings and the silk sutures were removed; wound almost healed; walls of abdomen supported by broad straps of plaster. The bowels having been cleared by enemata, she was allowed to take beef-tea, milk, and three ounces of port wine during the day. The patient complains of no pain, sleeps without morphia, and says she feels quite well. During the next few days her progress was somewhat interfered with by vomiting and inability to take much nourishment. — 28th (fifteen days after the operation): Dressings removed; wound quite dry, except here and there; the patient sleeps well, and takes nourishment; bowels relieved daily; allowed to sit up for an hour.—30th: Some swelling of the foot and calf of the leg; temperature and pulse normal.—Aug. 3rd (three weeks after the operation): Except some swelling of the left foot and calf, the patient is well; takes food, wine, and stout with relish. To wear a well-fitting belt.

The points of special interest in this case appear to be: first, the great ease with which the tumour was exposed, detached from surrounding parts, and removed (as after dissecting the bladder from the front of the uterus, and separating the lateral connexions, the tumour was easily

drawn forwards from the abdomen, and a comparatively narrow peduncle had to be dealt with); secondly, the patient being kept under the influence of morphia; and thirdly, being allowed to take scarcely anything but ice for seven or eight days after the operation.

Clapham, S.W.

A CASE OF

DIABETES TREATED BY PILOCARPINE.

BY T. CAWLEY EAGER, L.R.C.P. ED., M.R.C.S.

T. H——, a prison warder, aged forty-three years, first consulted me on Jan. 1st, 1882. I had known the patient for some years, and was much struck by his altered appearance. When I last saw him, some six or eight months before, he was a healthy robust looking man, but he had become pale and wasted and had a tired and worn look. His previous history was good till November, 1881, when he was under treatment for an abscess in the right hand, which was followed by boils, more or less severe in character, about the body generally, and since that time he had been getting thinner and weaker. His symptoms in January, 1882, were a feeling of failing health, great thirst, and a frequent passage of urine; this disturbed him several times during the night. The appetite had been better than usual, but the food seemed to do him no good, for he had been constantly growing thinner, his weight now being 179 lb., against the normal weight of 222 lb. On questioning him more closely, he told me he was passing sixteen pints of urine in the twenty-four hours, that he had entirely lost all sexual appetite and power, and that he felt utterly weary and worn out; in fact, the man's appearance, as he lolled in a chair, with rounded shoulders and drooping head, quite bore out his statement. The skin was dry and harsh, the tongue red and glazed, the mouth dry and clammy, the gums and lips covered with sticky mucus, and the bowels confined; the sight, however, was not affected in any way, his vision being perfect. On examining the urine, I found the specific gravity to be 1040, and containing, as shown by Trommer's test and subsequently verified by Roberts' fermentation method, an abundance of sugar.

I ordered a diet of butcher's meat, poultry, and fish; green vegetables, such as cabbage, spinach, and cauliflower; cheese; eggs, especially the white of the egg; Van Abbot's gluten bread, with or without butter; tea, with a little milk or cream, and sweetened with glycerine if necessary; seltzer, soda, or potash water, with five ounces of whisky or brandy; and also claret. The medicinal treatment was as follows:—One-twentieth of a grain of hydrochlorate of pilocarpine and one grain of sulphate of potash, to be placed dry on the tongue three times a day; five grains of pepsina porci and twenty minims of dilute hydrochloric acid, in an ounce of peppermint water, to be taken three times a day. A soap-and-water enema to be used daily if the bowels are not opened.

Under this treatment the patient began quickly to improve; within a month there was a marked lessening of the quantity of the urine passed, and of the amount of sugar it contained, and also a gain of 7 lb. in weight. The pilocarpine powders were taken regularly for six months, and the pepsine mixture for nine months, when both were stopped and no further medicines were given. The patient was seen at gradually lengthening intervals until July, 1883. The diet had been persevered with until this date, when the gluten bread was discontinued, brown bread or crusts of a well-baked loaf being substituted. Cocoa was allowed, as also a few turnips and carrots, and if the symptoms did not return in a month potatoes in moderation were to be added; but no sugar was permitted to be taken. Up to March of the present year the improvement had continued, the weight being then 207 lb., and the urine normal both in quantity and quality; all harshness of the skin had disappeared, the sexual appetite and power had returned, and to all intents and purposes the man was well.

Remarks.—This case at the commencement appeared to be a most unfavourable one; indeed, I did not hesitate to tell the patient that I thought most gravely of his condition. Fortunately for him he was most conscientious in carrying out the course of treatment I advised him to pursue, and did not relax it except when I gave him permission. It will be observed that no preparation of opium was given, for though codeia undoubtedly has the power of reducing the quantity of urine, it does so very frequently at the expense of the appetite, for the patient will often be found to become weaker and lose weight by its continuance. My reason for pursuing the treatment I adopted was by means of the pilocarpine to relieve thirst by promoting salivation, and thus diminish the quantity of urine, thereby increasing the weight and hence restoring bodily vigour. One of our great troubles in diabetes is the difficulty in getting patients to persevere in a treatment so monotonous, so that one rarely has a chance of recording an apparent recovery, especially in cases where there is so much loss of weight and such a quantity of sugar excreted.

Woking, Surrey.

MISPLACEMENTS OF THE UTERUS.

BY CHARLES E. FITZGERALD, M.D. ST. AND., &c.

AT the present moment, when so great a diversity of opinion exists among our leading gynæcologists as to the importance or non-importance of misplacements of the uterus, it is useful to appeal from theory to fact; and with this object it may not be uninteresting to cite the following two cases, as tending to show that some misplacements of the womb are not always devoid of serious or even disastrous consequences.

C. E——, aged twenty-seven years, unmarried. The patient had attempted suicide by strangulation. On my arrival I found her face much swollen, and of a livid bluish-red, with numerous petechiæ and patches of extravasated blood, and the conjunctival vessels ruptured—in fact, the usual appearances of strangulation. There was intense despondency and hysterical weeping, and a firm determination to refuse food. The tongue was foul, and the pulse rapid and compressible. The bowels were obstinately constipated, and the menses had been suppressed for six months. She expressed regret that she had been prevented from hanging herself, and exhibited great dislike to her mother, to whom she had been greatly attached. Her condition was one of profound melancholia. I ordered her a dose of calomel, and a brisk purge, to be followed by a mixture of sodium bromide and henbane, and compelled her to swallow some strong beef-tea. At my next visit I found her only very slightly better, although the medicine had acted well. As she still obstinately refused to take food, I again forced some beef-tea down her throat. I expressed an opinion that the uterus might possibly be at fault, and at her mother's request made a vaginal examination. I found a condition of extreme retroflexion and retroversion, the fundus being very low down and pressing on the rectum. With some difficulty I introduced a sound and replaced the uterus (the patient struggling and howling like a wild animal meanwhile), and kept it in place with a vulcanite Hodge pessary. Immediately the womb was in its place the patient became calm and quiet. The next day I found her quite sensible, calm, and smiling, though the face was still much swollen and congested. The menstrual flow had occurred in the night. She was taking her food readily, and was again affectionate to her mother. She told me she thought she "must have been mad to have behaved as she had done." This young lady remained perfectly well for more than two months, at the end of which time she came again to me complaining of depression of spirits, malaise, &c. I found the uterus again somewhat retroflexed, and that she required a rather longer pessary. She has continued well ever since.

F. G——, aged twenty-two, unmarried. When first seen she was suffering from profuse menorrhagia, which had persisted more or less, and with scarcely a day's intermission, for eighteen months. The pulse was weak and rapid. There were great prostration and general weakness. The face and skin were blanched, and the expression anxious. The gums and lips were bleached, and the patient could not leave the horizontal position without fainting. She was ordered one-drachm doses of the liquid extract of vinca major, and ice externally and internally, and by these means the hæmorrhage was, with difficulty, checked. On the third day I examined her, and found the uterus retroflexed at an acute angle, very much congested, and low down in the pelvis. I at once rectified the position, and introduced a

Hodge pessary, which retained the organ in position. The hæmorrhage ceased almost immediately, and did not return until the next menstrual period, and was then unusually profuse, during which she took first ergot and then tincture of iron. I kept this patient under observation for one more period, which was, however, quite natural. I then withdrew the pessary, and she returned home and has kept well ever since. This young lady had been under treatment for many months before I saw her, and had taken large quantities of iron, gallic acid, lead, ergot, &c., without effect.

Although I could quote many cases from my note-book where misplacements of the womb have produced grave symptoms, and which have rapidly subsided when the organ has been replaced and supported by a well-fitting pessary, I should not wish it to be thought that I overrate the importance of uterine misplacements. On the contrary, I believe that in many cases they exist without causing any manifest inconvenience; and I am of opinion that all the manipulations, injections, pessaries, &c., which are sometimes thought necessary in the treatment of these cases are worse than useless, and only tend to aggravate and encourage that morbid and self-conscious frame of mind which is so often found in women suffering from womb complaints. That there are, on the other hand, cases of misplacement requiring active mechanical and other treatment I do not for a moment doubt, and I think this is conclusively proved by the cases above quoted. It is, after all, a question of judgment; for while some cases should be judiciously treated, others should be as judiciously left alone. When there is no active congestion of the uterus due to obstructed circulation, no menorrhagia, no severe pain, no injurious consequences from pressure on the rectum or bladder, no bar to conception—in fact, merely a flexion due to relaxed ligaments and dependent on a condition of general weakness or ill-health, then the uterus may safely be left alone. When, however, the reverse conditions exist, then we should be deterred by no sentiment—or, worse still, by no fashion—from active and appropriate treatment.

Folkestone.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nullaautem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

WEST LONDON HOSPITAL.

RUPTURE OF THE TEGUMENTARY AND OTHER COVERINGS OF AN INGUINAL HERNIA THROUGH THE CICATRIX OF AN OLD INCISION FOR THE RELIEF OF STRANGULATION; PROTRUSION OF MORE THAN THREE FEET OF INTESTINES; REDUCTION; RECOVERY; REMARKS.

(Under the care of Mr. KEETLEY).

FOR the notes of this rare and remarkable case we are indebted to Mr. W. Milne Anderson, M.B., C.M., house-surgeon.

J. H——, a coal carter, aged fifty-six, was admitted on April 1st, 1884. He had suffered from a left inguinal hernia for twenty years, and was operated on for strangulation about five years ago. About 3 P.M. on April 1st, he was jumping off his cart, when he suddenly felt something give way, and on examining himself found part of his intestines protruding from the seat of his rupture. He left his cart in charge of a policeman, and, supporting the gut with his hands, walked a quarter of a mile to see a surgeon, who wrapped a piece of lint round the part and ordered him to go off to the hospital at once. On leaving the surgery he walked back to the place where he left his waggon, and then took a cab to the hospital.

State on admission.—On examination, his clothes and skin were found to be covered with coal dust. Lying on his abdomen were three coils of small intestine, slightly reddened and congested. Each coil was fully a foot in length. The pulse was good, and the patient did not appear to be suffering much pain. He was immediately put under ether, and Mr. Keetley, who happened to be in the hospital at the time, proceeded to operate. The surrounding parts were washed, and pieces of lint soaked in boracic lotion placed in the abdomen and round about the rupture. Each fold of gut was carefully sponged with boracic acid lotion, and then protected with a piece of lint soaked in the same. When the bowel was thoroughly cleansed, an attempt was made to reduce it, but this was found to be impossible until the rent had been enlarged a little and the ring nicked. Considerable manipulation was required to return so great a length of bowel into the abdominal cavity. The wound was a clean tear about two inches long, and seemed to be through the site of the old incision. The skin around the rent was shaved and thoroughly washed with a solution of perchloride of mercury. The neck of the sac was stitched up with catgut, as also were the pillars of the ring. An attempt was made to separate the sac, but unsuccessfully, owing to the intimate blending of all the coverings of the hernia. The opposite surfaces were therefore brought together by deep sutures and buttons. A drainage-tube was inserted, and the skin brought together with silver wire. An antiseptic dressing was applied, a pad of iodoform gauze being next the wound. The patient was put to bed and an opiate given. He was allowed nothing save ice to suck for twenty-four hours.

He passed a good night, was free from pain, and had no sickness. Next morning the temperature was 100·6°. About 4 P.M. a wineglassful of milk was ordered every two hours in ice. Evening temperature 100°. On the 3rd patient said he felt comfortable. Temperature 99°. The bowels had been opened freely. A nutrient enema was given every six hours. The evening temperature was 100°. On the 5th, as he complained of feeling uncomfortable after enemata, they were left off, and low diet ordered. Evening temperature 100°. On the 6th he passed a restless night, the temperature on the morning of the 7th being 100°. The wound was dressed for the first time. There was a slight discharge of pus along the deep button sutures, which were removed, as also were the superficial ones, and the drainage-tube was shortened. He passed a good night. On the 10th the temperature was 100°. The wound was dressed again. There was a considerable discharge of pus from the site of the button sutures. Several incisions were made, and three small drainage-tubes inserted.

From this time the wound was dressed daily, the temperature varying between 99° and 101°. On April 22nd the temperature rose to 102°. The wound was injected daily with a lotion of sulphate of zinc and subnitrate of bismuth. The discharge became less, but, the temperature still keeping about 100°, the sinuses were slit up, scraped, and packed with iodoform gauze on May 9th. After this the temperature fell to normal, the wound gradually healed, and he left the hospital with his hernia radically cured on June 11th.

Remarks by Mr. KEETLEY.—This case is interesting from (1) the rarity of the accident, (2) the length of time during which many feet of intestine remained in contact with the air and with the patient's grimy trousers and shirt without any peritonitis resulting, and (3) the contrasted behaviour of the parts internal and external to the hernial opening respectively. The only similar case with which I am acquainted was that of a lady of whom I heard the late Mr. Holmes Coote relate that the coverings of her umbilical hernia ruptured spontaneously while she was returning from a dinner at Richmond. Mr. Coote was sent for to her house in town, and replaced the escaped intestines. The patient recovered completely. Of course there have been many cases of recovery after the escape of intestine through a wound. The case above recorded would tend to show that the peritoneum is either not very susceptible to ordinary as distinguished from specific septic infection, or that at least it is easily disinfected. That a smooth thin membrane like the peritoneum should be much more easily and speedily aspepticised than the thick irregular skin crowded with glands, and in the pubic region studded with hair follicles, is what would be naturally expected; and I was not much surprised to see the extra-peritoneal wound suppurate. The sutures of the neck of the sac and of the ring completely isolated and protected the abdominal cavity and its contents, which were never affected by the suppuration in and about the old sac. Considering the great length of intestine which had escaped (at first glance it looked as though there must be more outside than inside the abdomen), the process of reduction

was easy. But one end was passed back far more easily than the other, and almost all the escaped intestine was passed back in one direction, one inch after another being pushed in by the forefinger or the fingers of one hand and kept in by those of the other. Boracic lotion was used for the cleaning and aspepticising of the intestine, because there was reason to expect that the cleaning and replacement would occupy a long time, for which reason carbolic lotion was objectionable both on account of its irritating qualities and the danger of poisoning; but the extra-abdominal parts where the suppuration eventually took place were treated both with carbolic and corrosive sublimate lotion (1 in 1000).

WOLVERHAMPTON AND SOUTH STAFFORDSHIRE GENERAL HOSPITAL.

BUFFER ACCIDENT; DEATH; NECROPSY, REVEALING TWO RUPTURES OF THE DIAPHRAGM AND PROTRUSION OF THE RIGHT LOBE OF THE LIVER, THE SPLEEN, AND THE STOMACH INTO THE THORACIC CAVITY; LACERATION OF SPLEEN AND KIDNEYS.

(Under the care of Mr. KOUGH.)

FOR the following notes we are indebted to Mr. J. W. Batterham, B.S. Lond., house-surgeon.

J. J——, aged twenty-six, while at work as a "shunter" on July 24th, 1884, at 12·30 A.M., was crushed between a railway engine and the buffer of a "goods" van. When admitted into the hospital half-an-hour after the accident, he was conscious, and complained of thirst and of great pain over the lower part of the abdomen. The skin generally was cold and pallid but the face was of a dusky hue. The pulse was just perceptible. No fracture of the ribs or pelvis was discovered; the abdominal walls were extremely retracted; there was dulness on percussion over the hypogastrium and the flanks. A few drops of bloody urine were drawn off by catheter. The patient had no desire to pass urine. There was no vomiting or retching, and only once did the patient complain of nausea. He became rapidly weaker, and died about two hours after admission.

Necropsy, thirty-six hours after death.—A few abrasions were noticed on the trunk and thighs. There was very little post-mortem congestion of the dependent parts, the skin being remarkably exsanguine. Abundant punctiform ecchymoses were noticed over the upper sternal region, neck, and face; these ecchymoses ended abruptly about the middle of the forehead, being absent over the part presumably covered by the cap. There was a slight effusion of blood beneath the skin of the eyelids, as well as beneath the ocular and palpebral conjunction. On opening the thorax about two pints of blood escaped from the pleural cavities. The heart, which contained very little blood, was normal in appearance. No ecchymosis of the pericardium or endocardium was noticed. The lungs were shrunken, crepitant, and bloodless. On removing the thoracic viscera, subpleural extravasations were seen about the roots of both lungs and beneath the right costal pleura. Two extensive lacerations of the diaphragm were now apparent, one about five or six inches long, extending across the right division of the central tendon; and a second, about an inch less in extent, extending through the muscular fibres behind the left division of the tendinous portion. Protruding through the rent on the right side was the posterior half of the right lobe of the liver. This portion of the liver was devoid of peritoneal covering, which appeared to have been reflected from it as it was thrust through the ruptured diaphragm. On the under surface of the right lobe was a small laceration an inch long and half an inch deep. Through the rent on the left side of the diaphragm had passed the spleen and the stomach. The latter, which was partially distended by fluid food, was intact. The left kidney was found lying in the rent. Very little blood was found free in the abdominal cavity, but there was extensive retro-peritoneal extravasation around the duodenum and kidneys. Both kidneys and spleen, more especially the former, presented lacerations extending in a radiate manner from the hilus. The pancreas was not lacerated, but presented several interstitial hæmorrhages. The intestines, which were almost empty, were unruptured, and no part except the duodenum showed any signs of bruising. The bladder was intact, and contained about two ounces of bloody urine.

Reviews and Notices of Books.

Practical Manual of Diseases of Women and Uterine Therapeutics for Students and Practitioners. By H. MACNAUGHTON JONES, M.D. Pp. 410. London: Baillière. 1884.

THE task which the author has set himself is an exceptionally difficult one; it has not, in our judgment, been yet satisfactorily accomplished, and the work before us forms no exception to the rule. Dr. Jones does not seem to have laid out his work so as to apportion a suitable space to each subject, some parts being treated more or less at length and with long quotations, while other important questions are reduced to mere lists. Again, possibly out of regard for sensitive feelings, essentially contradictory opinions are endorsed, the author's own views being thereby rendered inscrutable. He indulges in spirited denunciation of inventors of pessaries, and yet describes them and figures them by the score. He repeatedly asserts that this or that operation will not be described, as it is unsuitable for the general practitioner, and yet, for example, says such things as the following: "Simple incision of the lower part of the cervix has frequently to be resorted to, and is a step that must constantly fall to the lot of every practitioner"; the application of nitric acid to the cavity of the uterus "is a simple step that any intelligent practitioner should be able to carry out." We also quote the following: "In young anæmic or chlorotic girls a vaginal examination is, as a rule, not necessary." (We should think not, indeed!) "Only when, from other symptoms, we are led to suspect some inflammatory condition, or a version or flexion, is a digital examination called for." And this in spite of the fact that 75 per cent. of all nulliparous women have anteverted or anteflexed uteri! Dr. Duncan is said to associate spasmodic dysmenorrhœa with versions and flexions—a statement which we leave to that gentleman, who is quite capable of fighting his own battles. The figures are not a redeeming feature, and some of them, representing nude women in various postures, quite unnecessary. But we cannot omit to mention, in conclusion, that the author does really commit himself to an opinion adverse to intra-uterine stems; and that the preface contains several unimpeachable medico-ethical sentiments. The glairy transparent cervical plug once again figures as the enemy of the human race; which reminds us of the dictum of the American orator with regard to woman—that "Had it not been for female woman, few of us would be here at the present time."

Poisons; their Effects and Detection. A Manual for the use of Analytical Chemists and Experts. By ALEXANDER WYNTER BLYTH, M.R.C.S., F.C.S., Public Analyst for the County of Devon, and Medical Officer of Health and Public Analyst for St. Marylebone. London: Charles Griffin and Co. 1884.

THIS is a companion volume to the author's well-known work on Foods, and they together constitute a new edition of his Practical Chemistry. The reason for the change of title is obvious. The present appellation is distinctive, and avoids the possibility of confusion with works of a different scope and character, which might with equal propriety be classed under the head of Practical Chemistry. The new volume, like its predecessor, opens with an historical account of the subject, an excellent *résumé* being given of old poison lore. This is followed by a number of useful tables, one of them being devoted to an analysis of 1000 cases of suicide which occurred in England between the years 1871 and 1880. Opium, it appears, is in this country responsible for over 40 per cent. of the total deaths from all kinds of poisons. This is a higher percentage than prevails in

any other European nation. In France poisoning by opium and morphia accounts for only about 1 per cent., whilst in Denmark, Sweden, Switzerland, and Germany the proportion is equally low. Our high mortality, says Mr. Wynter Blyth, arises in great measure from the pernicious practice, both of the hard-working English mother and the baby-farmer, of giving infants "soothing syrups," "infants' friends," "infants' preservatives," "nurses' drops," and the like, to allay restlessness, and keep them during the greater part of their existence asleep. A long list is given of patent medicines containing opium, from which it appears that in many cases the proportion of the active drug is much higher than in any pharmaceutical preparation. A good and clear account is given of the ptomaines, or cadaveric alkaloids, a subject which has of late attracted much attention both here and abroad. The various kinds of snake-poison are dealt with in an able manner, much of the information being evidently the result of personal observation. The mydriatic alkaloids are fully discussed in all their bearings, and their antagonists, physostigmine, pilocarpine, and muscarine, receive due notice. The information is, as a rule, up to date, care having been taken to include several of the newer remedial agents, such as guebracho, and its active principles, aspedospermine and guebrachine. In some cases the author has unfortunately overlooked important papers, and in one or two instances has omitted nearly all reference to the physiological action of the drug. The chapter on the Treatment of Cases of Poisoning is poor, and requires careful revision; but taking the work as a whole, it may be said to be worthy of the author's high reputation.

A Treatise on Chemistry. By H. E. ROSCOE, F.R.S., and C. SCHORLEMMER, F.R.S., Professors of Chemistry in the Victoria University, Owens College, Manchester. Vol. III. Part 2. London: Macmillan and Co. 1884.

The Principles of Theoretical Chemistry, with special reference to the Constitution of Chemical Compounds. By IRA REMSEN, M.D., Ph.D., Professor of Chemistry in the John Hopkins University. Second Edition. London: Baillière, Tindall, and Cox. 1884.

A Short Text-book of Inorganic Chemistry. By Dr. HERMAN KOLBE, Professor of Chemistry in the University of Leipzig. Translated and edited by T. S. HUMPIDGE, Ph.D., B.Sc.Lond., Professor of Chemistry and Physics in the University College of Wales, Aberystwyth. London: Longmans and Co. 1884.

A Text-book of Inorganic Chemistry. By Professor VICTOR VON RICHTER, of the University of Breslau. Authorised Translation of the Third German Edition, by EDGAR F. SMITH, A.M., Ph.D., Professor of Chemistry in Wittenberg College, Springfield, Ohio. London: Henry Kimpton. 1884.

THE fifth volume of Roscoe and Schorlemmer's treatise continues, but by no means finishes, the history of organic chemistry. It would seem, indeed, as if two more volumes would be required, and we trust they will appear with as little delay as possible, for a complete treatise on organic chemistry is very much wanted. Among the groups described in the present volume may be noticed as particularly important to our readers those which include oxalic, lactic, succinic, malic, tartaric, citric, and oleic acids, the uric series, the glycerides, the drying oils, and, above all, the carbohydrates, which are excellently arranged and described. The high merit of the previous volumes is fully maintained, the historical sketches have been prepared with great care, and the bibliography is exceedingly rich. Everyone interested in chemistry will want the book, and all will feel grateful for it.

There is really very little to say about the three elementary text-books whose titles are given above. Each possesses great merit, and each would be an absolute treasure if there were not already so many of the same kind in existence.

Professor Remsen's little book is a second edition, which proves that in America, at any rate, its value has been recognised. The second part, dealing with the constitution of chemical compounds, is, we think, the best.

Professor Kolbe has given to the German and Professor Humpidge to the English student a guide in which theory and description are well balanced. It is intended as an aid to students attending a course of lectures; and the author, in his preface, gives some wise and opportune remarks, the results of great experience, on the value of lectures and their limits of usefulness. He says: "A necessary condition for using a text-book of chemistry successfully is attention and continuous attendance at the lectures. Students in Arts who have not regularly attended a course of lectures may be able to read up afterwards what they have missed; but a lecture which has not been attended by a student of chemistry cannot be made up by mere reading; neither the notes of the lectures by other students, which ought to be extremely few, nor a text-book, can serve as a substitute for what has not been heard. The chemist has to learn, not by reading nor by hearing alone, but by hearing and seeing. A person who has not *seen* the phenomena produced by the union of oxygen and hydrogen, for example, can have no clear conception of them, nor of the chemical change that accompanies them. Nothing is more foolish than the opinion which I have often heard from young medical students that chemistry can be studied from books alone [we presume the translator means books *only*], like other subjects; that facts which are learnt by heart can take the place of general principles only partially understood." With this, and with much that follows, we entirely agree. The general principles of the science can only be taught by lectures aided by reading, for no student can verify fundamental laws by experiment. In fact, to quote Professor Kolbe once more: "To enumerate many chemical facts loads the memory with ballast, and tends to learning by rote instead of clear perception and after-thought." It will be seen from the above extracts that the translation is not very elegant. It appears, however, to be on the whole clear and accurate.

Professor von Richter's manual has not fared quite so well in the hands of the translator. Some glaring errors disfigure the English version—notably, the repeated use of the words methyl and ethyl, instead of methane and ethane, on pages 142–144. The book is, however, in several respects original, and we note with special approval the section on crystallography, and the account of, and frequent allusions to, thermochemistry, a branch of the science much neglected in English books, but of rapidly increasing importance. We are sorry to see that both Professor Remsen and Professor Kolbe attribute the interesting periodic law of atomic weights to Mendelejeff, instead of to John Newlands, who was its real discoverer.

The London Water-supply—Past, Present, and Future. By G. PHILLIPS BEVAN, F.S.S. London: Edward Stanford.

AT a time when changes in the organisation by which London is supplied with water are being so much discussed, this little work has an interest beyond that which it would otherwise secure on its own merits, for in a compact form it gives an account of the ancient and modern methods by which the metropolis has been supplied, together with many important and useful details as to the existing water companies, concerning whose operations and proceedings it is so important that Londoners should be well informed. Whilst our London supply tends to diminish, the demand for water is on the increase, and hence the author considers the feasibility of procuring the needed further supply—first, from the Thames basin, and, secondly, by means of one or other of the north country schemes that have been advocated. Whatever steps may be taken in the direction of

purification of sewage, the fact remains that the sewage of nearly a million and a half of people has, after being submitted to certain processes, to find its way into the Thames valley, and hence Mr. Bevan describes in detail the several alternative schemes of supply, feeling confident that to one of these London will ere long have to turn.

SOME INTERNATIONAL HEALTH LITERATURE.
London: William Clowes and Sons.

Accidental Injuries. By JAMES CANTLIE, F.R.C.S.—This handbook is intended as a guide from which the public may learn how to render efficient aid at the moment of injury. The book is illustrated with good woodcuts, and has an index easy of reference. The instructions given are very excellent, and conveyed in language as free as possible from technicality.

Dress. By E. W. GODWIN, F.S.A.—The method on which this book is constructed is the historical; the history of dress is said to be curiously parallel with that of architecture. "As speaking involves poetry and music, as architecture involves painting and sculpture, so dressing involves in principle all these." The dress of civilised nations may be broadly divided into two great classes, the loose and the tight. This primary distinction is, no doubt, owing to climate The highest type of the first class is seen in the Greek chiton and himation, as represented in sculpture and on vases, of 450–350 B.C. The highest type of the second is found in the effigies and paintings of England and France about 1350 A.D. This book deals chiefly with the artistic aspect of dress, and contains a large amount of information, with sixty-eight capital illustrations.

Athletics. By Rev. E. WARRE, M.A.—This is a very good little book indeed; everyone should read it. We shall content ourselves with quoting a sentence from the chapter on Advice to Reading Men. To all who are working for an examination the author says, "Your brain, in order that it may do its work, will require a continual supply, and that a large supply, of good arterial blood. What are you doing about your heart and lungs?"

Alcoholic Drinks. By JOHN THUDICHUM, M.D. A large amount of information is brought together in this handbook; but the reader does not meet with much encouragement to proceed with his subject, owing mainly to the uninteresting manner in which the matter is presented. We are in agreement with the sense of the author's last paragraph, which is to the effect that liqueurs are frequently offered at a price many times their value.

Infectious Disease. By SHIRLEY MURPHY.—The origin, behaviour, and means of prevention of infectious disease is here treated in a popular manner with great success. We hope that the book will be widely read, not only from a desire to further the diffusion of useful knowledge, but also from a belief that such diffusion would tend to lighten the task of the doctor, who has often to battle with the passive resistance of the friends of his patients in dealing with cases of infectious disease. Moreover, the dangers from contagion which constantly surround the individual cannot be better averted than by the personal possession of information concerning them.

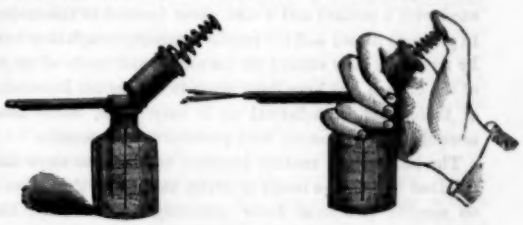
Diet in relation to Health and Work. By A. W. BLYTH, M.R.C.S.—The arrangement of this book is systematic. The material is conveyed in plain language. A great deal of instruction is brought together in the small compass of ninety-two pages. Five tables of reference showing the percentage composition of various articles of diet are not the least valuable part of the work. The chapter on the Principles of Diet is likely to prove interesting to a large section of readers of popular works.

Healthy Nurseries and Bedrooms. By Mrs. GLADSTONE.—This brief essay will assuredly be read with profit by all who have watch and ward of children. In a very modest preface the authoress claims for the work but little originality, having thought it well to bring together in a convenient form information derived from many trustworthy sources. In this she has succeeded admirably. Dr. Champneys has given his aid in the chapter on the Lying-in Room.

New Inventions.

THE ATMONEMETOR, OR SPRAY-PRODUCER.

THE apparatus figured below, introduced by Dr. Wright of Old Burlington-street, consists of a bottle to which is attached a syringe. This is worked by pressure of the thumb on a spiral spring fixed round a piston-rod. The air thus driven displaces a small portion of the fluid contents of the bottle, and forces it along a horizontal tube, at the end of which it is discharged through very minute orifices, and is distributed in finely divided spray. Though suitable for



other purposes, the instrument is primarily intended for use in throat diseases, and to facilitate employment in these cases the tube is furnished with a plate beneath, which serves as a tongue depressor. The Atmonemetor is a very convenient instrument, as it can be held firmly and worked with one hand. In its construction, also, it is free from soft and perishable material, and is thus available in any climate. It is made by Messrs. Krohne and Sesemann.

"PHYSIOLOGY OF THE FEET."

To the Editor of THE LANCET.

SIR,—I am sorry to have misunderstood Mr. Ellis's remarks on the above subject, since it appears that we agree as to the facts, and differ only in our views of what ought to be. One should be cautious in accepting a theory which does not accord with daily experience. I must, therefore, hold my present opinion until it has been distinctly shown that untrained savages place the toes down first, not only when walking on stones or thorns, but also on smooth ground. Even then it would not follow that we ought to imitate them; our distant ancestors walked on all fours, but it has long ceased to be right to do so. The act of letting the heel gradually down from the toe and afterwards raising it complicates the act of walking in a way quite unnecessary under ordinary circumstances. If I have to walk among tin-tacks or the like, I certainly place the toes down first; but then I keep the heel off the ground entirely, finding it most comfortable to put down as little of the foot as possible.

I am, Sir, yours faithfully,
F. J. ALLEN.

August 10th, 1884.

THE POLLUTION OF THE WITHAM.—On the 6th inst. Mr. Harrison, an Inspector of the Local Government Board, held an inquiry with respect to an application by the Corporation of Lincoln for the consent of the Local Government Board to proceedings being taken against a firm of tanners for polluting the Upper Witham. After hearing evidence, the Commissioner said he thought it very desirable that the matter should be arranged, and after some discussion, it was decided to adjourn the inquiry until Oct. 1st, with a view to that course being taken.

THE LANCET.

LONDON: SATURDAY, AUGUST 16, 1884.

THE subject chosen by Dr. KIDD for his address before the meeting of the British Medical Association at Belfast—Puerperal Fever—is one, in whatever manner it be treated, or from whatever point of view examined, whose interest never fails; for the importance and value of the lives of its victims, the peculiar circumstances in which it makes its attacks, and the degree of uncertainty surrounding its cause and origin, together with the fear and loathing with which it is regarded, will always make it a subject of the greatest interest to the obstetrician and general practitioner. At all periods no little time and labour have been devoted to its study, but during recent years this study has been pursued with a method and a care never devoted to the subject in previous times; and the results obtained, though they have by no means fully cleared up the nature and mode of origin of the disease, yet have done much to further our knowledge of them, and, paradoxical as it may seem, much more towards their treatment, both preventive and curative.

The tendency of modern research has been to show that childbed fever is the result of septic infection; that there is no specific puerperal fever occurring epidemically, like small-pox and scarlet fever; that other fevers and the acute specific fevers may attack lying-in women and run their usual course, or become complicated by so-called puerperal fever or septicæmia; and that there are cases in which severe febrile symptoms may arise in consequence of the injuries sustained by the pelvic organs during labour, such fevers being independent of septic influences. Dr. KIDD appears to be at one with the majority of obstetricians with respect to much that is believed about these affections; but he discards the septicæmic and believes in the specific character of the fever, or of certain cases of it; and in his address at Belfast he brought forward some of the evidence upon which this view is based. In the brief time at his disposal it was impossible for him to marshal all the evidence at his command in support of his view; at the same time, fully aware of the tendency of modern research, he cannot have failed to produce some of the strongest and the most unanswerable evidence in his possession, with a view to stem the tide of modern error; and it is to this part of his address that we would more particularly direct attention.

This form he illustrates and describes under "epidemics" of puerperal fever. "In the case [epidemics] we have now to consider," he says, "the disease may manifest itself before labour has set in. It seizes great numbers at the same time; it observes cycles of development and decline, sometimes disappearing altogether for short or long periods; at its onset it proves fatal to almost all who are attacked by it; as it declines, it becomes more mild in its character, and many of those attacked recover." Then Dr. KIDD illustrates this statement by a case, and by the history of the outbreak of puerperal fever in Dublin in 1854–5, as given by the late Dr. MCCLINTOCK. In the case related by Dr. KIDD, fever set in before labour, and three days after labour diarrhœa, pain, and vomiting, with death on the sixth day. The case is too briefly recorded to define the illness preceding labour, but surely it does not follow that it was puerperal fever. It is well known that in the course of certain fevers pyæmia occurs, and the case reported by Dr. KIDD appears to be one of septic poisoning in the course of, and perhaps caused by, a febrile condition already present. This is a very different thing from puerperal fever setting in before labour. While considering this point, it should always be borne in mind that, whereas a surgical operation is not performed in the presence of fevers, labour not unfrequently sets in in the course of one of these diseases, and that a febrile state alone is sufficient to give rise to fetid lochia, a condition generally believed to play a very important part in the production of the fevers of childbed. Then follows MCCLINTOCK'S description of the "epidemic" of puerperal fever in Dublin in the years 1854–55. This clearly shows an outbreak of puerperal fever, virulent at the commencement, milder towards the close. But such outbreaks do not prove the epidemic character of the disease. Similar outbreaks of pyæmia and septicæmia were by no means unknown in the surgical wards of our hospitals at no very distant period, and no one would for a moment entertain the suggestion that they were epidemics. But it may be said that such outbreaks of pyæmia did not occur in the private practice of the surgeon, while they did in that of the obstetrician; and this is true. Puerperal fever, however, dogged the steps of individual practitioners and nurses, but did not attack indiscriminately all or "large numbers" of women confined in a certain locality. This difference in the private practice of the surgeon and of the obstetrician is easily explained by the difference in the parts injured, and the ease with which they can be cleansed in surgical cases. Outbreaks of pyæmia in hospitals have been traced to causes which are remediable, and not to epidemic influences, although pyæmia and septicæmia are in some degree subject to such influences, and are more prevalent at certain seasons and when other diseases are rife, as was shown by the Committee appointed by the Pathological Society to report on Pyæmia. These facts point to the attendants as the carriers of a poison, and not to a poison generally disseminated through the air.

No one doubts that septicæmia and puerperal fever are transmissible diseases, and the researches of PASTEUR have shown how outbreaks of these diseases are virulent at the beginning and milder later on. In the diseases the virus of which he has isolated and cultivated (chicken cholera, charbon, and hydrophobia), he has found that successive generations of the virus possess feebler infective properties, until finally it entirely loses its character as a virus. The same appears to hold good in the transmission of certain poisons through the human body, and amongst them that of puerperal fever. In face of all the facts about this malady which have as yet become known, it is not possible to regard it as a disease at any time epidemic, and all the evidence tends to show it to be a disease transmissible, and that the agents in its transmission are the attendants on the sick. By acting on this assumption, the results obtained have been far superior to those obtained on the older—epidemic—view of the disease.

NO apology is needed for returning to the subject on which we commented last week now that the full text of

Dr. KOCH'S address is before us. The predominant interest of the subject, and the necessity that Dr. KOCH'S views should not be misinterpreted, are sufficient reasons for again referring to it. And in the first place be it remarked that, although the interesting observation remains that the bacilli of cholera are less tenacious of life, and are apparently even destroyed by the bacteria of putrefaction, it would be going too far to take seriously the inference which we somewhat satirically drew from this fact last week. Certainly no sane sanitarian would dream of encouraging putrefaction to get rid of cholera; but what is of importance to know, and what Dr. KOCH himself deduces, is that none of the usual measures taken to arrest putrefaction will destroy the morbific virus of cholera. He thinks that such measures are carried to an extravagant degree (although it might be asked if this were possible in many places we could name), and are yet of no avail in stamping out the disease. We should hardly have raised this point again were it not for the fear lest the real import of this apparent incompatibility of the putrefactive and the pathogenic micro-organism should be misapprehended. The portion of the address of which we publish an abstract to-day dealt with many important problems. Some of the strongest criticism—e.g., that by Dr. CAMERON at Belfast—levelled against the conclusion of Dr. KOCH that his microbe is the cause of cholera, has been based on the failure of his attempts to communicate the disease to the lower animals. He fully admits the failure, but he points out that those animals never have cholera spontaneously; and he explains much of their immunity by the fact that the bacilli are destroyed in the stomach and never reach the intestine. Moreover, he urges that the bacillus is a parasite, and most parasites have their special hosts—an argument which may, however, prove too much. The fact that the comma bacillus—which, by the way, seems to have relatively slight tenacity of life—is destroyed by the gastric secretion, suggests that in the human subject much stress must be laid upon digestive derangement in favouring the passage of the bacillus into the bowel; and the well-known fact of the danger of consuming indigestible matters in cholera times is invoked to support this doctrine. In fact, there are few points even in the very wide etiology of cholera which Dr. KOCH does not fail to gather up and to explain on his bacillus doctrine. We may instance especially the evidence of infection by contaminated water, and the equally accepted fact of infection of those who wash the foul linen coming from cholera patients. Here we have facts well established and admitted, which harmonise very well with the view taken by Dr. KOCH, especially as he has found the bacillus in the linen and in befouled water.

He passes in his address from the conditions of individual infection to those which influence the course and progress of epidemics, and he does not hesitate to deal freely with the large questions that have so long and so often been debated by epidemiologists. He is convinced that the bacillus is the cause of cholera, and straightway he proceeds in the clear and comprehensive manner of which he is master to depict the home of the fateful parasite in the Ganges delta, whence it is conveyed, not by the air or in a dried state in merchandise, but by the human body, so that the dangers of the spread of epidemics increase in proportion as facilities for travel and intercourse are multiplied. Nor is there anything new in this conclusion; but hitherto we have had to endure views of an opposing character on this very point. Dr. KOCH may be an enthusiast, and the eminent men he has gained over to his views may also be under a delusion; but, seriously, we confess that more hope of eradication of this scourge is raised by following his leadership, and acting in good faith in the direction that he points, than by accepting any of the theories and speculations of which the world has had so many. For is now hardly a question of theory, but a very plain practical fact, and one upon which it is possible to act in attempting to check the ravages of cholera on the shores of the Ganges and to limit its diffusion abroad.

At the time of writing we learn that the report of MM. STRAUSS and ROUX has been laid before the Paris Academy. It contains statements based on their observations last year in Egypt, and recently at Toulon, which are far more confirmatory of Dr. KOCH'S view than has been generally supposed. Thus they have observed the presence of the comma bacillus in most cases examined, and believe that this organism plays an important part in the disease. Although they hesitate to regard its relation to cholera as a causal one, they nevertheless arrive at the same conclusion as Dr. KOCH, in the belief that *if* this be so the action of the bacillus must be ascribed to a power possessed by it of producing a poisonous substance—the choleraic virus. At the same time they announce the detection of the comma bacillus in other diseases, but no mention is made of the results of cultures in such cases—a point in diagnosis on which Dr. KOCH lays much stress.

THE term Pharmacology is one by no means easy of definition. To it is no longer assigned the old significance which it bore as a mere synonym of Materia Medica. It is the science of the action of remedies, and deals with the modifications produced in healthy conditions by the operation of substances capable of producing modification. It constitutes the chief basis for the application of remedies in disease, and is an important connecting link between materia medica on the one hand and the art of medicine on the other. The term Therapeutics is familiar enough to the practical physician, and has for its object the treatment of disease. Authors are not agreed as to the limits to be assigned to the subject, for in its most extended sense it embraces all known methods of cure. Of late the combined subjects of Pharmacology and Therapeutics have assumed such importance in our educational course as almost to oust the old-fashioned Materia Medica. That the change is beneficial cannot for a moment be doubted. Materia Medica was always an unpopular subject both with students and teachers, and it is difficult to see what benefit could accrue from learning by rote the botanical names and characters of a number of drugs which were seldom seen, and rarely or never prescribed. A knowledge of Pharmacology or the physiological action of drugs, on the other hand, not only strengthens the intellectual faculties, but goes far to lay the foundation of a good practical knowledge of the treatment of disease. The change which has taken place in the teaching of the so-called Materia Medica is well illustrated by a comparison of the examination papers of to-day and of five years ago. The old-fashioned

examiner in Materia Medica required the student to "give a list of the leaves in the Pharmacopœia," or asked him to enumerate the roots named in that publication, "with their differential characters." Such knowledge was "crammed up" slowly and laboriously, and was of not the slightest value when attained. The questions now asked, at all events at all the better-class examinations, are of an entirely different stamp. Here, for example, is one taken at random from the calendar of the University of Edinburgh:—"Give an account of the physiological action of atropia both on man and the lower animals. Mention some of the alkaloids to which it is most closely allied, and some to which it is antagonistic. What substances applied typically dilate the pupil, and what contract it?" Questions such as these not only test the student's reading, but ensure the possession of a certain amount of knowledge, which cannot fail to be of the greatest value to him in his future career.

If further proofs were needed of the enormous strides made of late in this department of science, they might be found in the institution by the British Medical Association of a new section of Pharmacology and Therapeutics. It seems to be generally admitted that this section was the event of the meeting at Belfast. It was at one time thought that Pharmacology would never be popular with the great bulk of the profession, but that such is not the case is shown by the fact that this special section was crowded during the whole meeting, even when other departments languished and were poorly attended. It must be admitted that the promoters of the section of Pharmacology took a somewhat liberal view of the subjects included within its scope. Thus we find a debate on the British Pharmacopœia and the Patent Medicines Stamp Act culminating in the passing of several very practical resolutions; a discussion on antipyretics and the therapeutic uses of the oleates; a series of demonstrations on the action of various remedies on the frog's heart, and of instruments used in tapping the chest; and other features of equal interest. This may have been carrying matters rather far, but it must be admitted that if it were a fault, it was a fault on the right side. We do not see that the question of the repeal of the Patent Medicines Stamp Act could have been discussed equally well in any other section, and the absolute necessity for bringing the matter prominently before the profession cannot for one moment be doubted.

At the meetings of the British Pharmaceutical Conference matters relating to pharmacology and therapeutics are often discussed incidentally, although necessarily the bulk of the work is devoted to pharmacy. The presidential address is always looked forward to with considerable interest; and that delivered by Mr. JOHN WILLIAMS at Hastings on Tuesday last was evidently listened to with especial pleasure. During the last two years we have had occasion more than once to comment favourably on the orations published by Professor ATTFIELD in his presidential capacity. The year-book issued by the Conference contains an authentic record of the progress of pharmacy during the preceding twelve months, and is of considerable use to original workers.

The part taken by THE LANCET in the promotion of the science of Pharmacology will not be forgotten. From time to time special articles on the subject appear in our pages, a course which has doubtless stimulated the British Medical Association to take the step above referred to; and there is hardly an original paper, either on the physiological action of drugs or their practical application to the treatment of disease, which has not received attention at our hands. Pharmacology has undoubtedly a brilliant future before it, and great credit is due to those who have devoted their time and energies to promoting and popularising the subject.

WHEN the three Goddesses met on the summit of Mount Ida, the envy, hatred, malice, and all uncharitableness with which each regarded the other two, as possible possessors of the apple about to be awarded by the too happy shepherd, were no doubt veiled under the usual compliments about personal appearance of which the sex is so great a mistress. But had these ladies had an idea of the prophetical significance of the scene which they were unconsciously enacting, especially of the apple, and of the ten thousand miseries which it would bring upon the inhabitants of the world in the end of the nineteenth century, charity forbids us to doubt that they would have resorted to the quickest and most certain means for its destruction. Whether they would have thrown it at the head of PARIS or down the slope of Mount Ida, or whether they would have divided it into three segments and then and there solemnly masticated it, or given a quarter or the whole to PARIS, we have not time now to speculate. But ZEUS or HERMES would have won our eternal gratitude had he whispered in the ear of any one of the three that the apple was an ovarian tumour, and that the three Goddesses were the prophetical types of the general surgeon, abdominal surgeon, and obstetrician respectively. The original subject has been often painted, but we recommend the antitype to the Royal Academy, and do not doubt that they will find willing sitters for each of the three characters.

We need not further allude to the constant discussion and wrangling on the subject which is heard at our Societies and is to be read in our periodicals, except to remark that the substance of the apple is unmistakably golden, and that the chink of fees seems to us to have repeatedly and effectually drowned the feeble voice of the patient, whose interests have surely *some* claim on our attention. Since ovariotomy became a thoroughly established procedure, it has been practised under various conditions at different hospitals. At some the obstetric physician under whose care the case probably comes in the first instance retains it; but the general tendency has been for the surgeons to take the operation away from the obstetric physician, and either for the surgeon to operate on each case he gets, or for a surgeon to be appointed to perform all ovariotomies for a term of years. Another plan (if plan it can be called) is for all the surgeons and the obstetric physician to operate whenever they can. In discussing the question, a glance at the history of the operation will show that it owes its advances to surgeons—that is, to those who have made a special study of abdominal surgery; and that they find life too brief, and a day of twenty-four hours too short, for the study and practice of their subject. The claim of perfecting the operation rests, then, with the abdominal surgeons, and it is plain that its pursuit involves a vast expenditure of time and study.

In calculating the relative success of various operators, we

are met by the first of the Hippocratic aphorisms, "Experience is fallacious," which might be extended to the statistics of abdominal surgery until, at least, such time as the whole truth on this head shall be authoritatively published by the special and other hospitals, including the relative results of those who adopt or reject antiseptic measures. In a matter so serious as abdominal surgery, it is surely not too much to ask that operators shall combine in a search after the truth, with a little less apprehension on the score of their individual advancement. Still, laying this question aside, it seems abundantly proved meanwhile that large experience conduces in a marked manner to success, and that percentages derived from small numbers need not be considered. A man who has operated once must either have a success or a mortality of 100 per cent.; while a man who has operated once less often may say that he has never lost a patient after the operation. We should therefore lay down the principle that it is for the advantage of the patient that operations should be to some extent centralised. In the metropolis we imagine that this is what actually happens—in private at least,—and that patients require to be assured as to the number of operations successfully performed by the proposed operator before entrusting themselves to his hands. In the provinces the circumstances are different, and need not here be discussed.

But perhaps the most burning question is that of the allotment of abdominal surgery at the general hospitals, and we have already referred to its various solutions. At the commencement, we feel bound to repeat what we stated above, that the question has, on the whole, been fought in a thoroughly selfish spirit on both sides, and that the solution most generally adopted has usually been arrived at by the very simple process of outvoting, which is not difficult, seeing that there are perhaps four or more surgical votes to one obstetrical vote, taking the average composition of the staffs of the London hospitals, the physicians practically remaining neutral. Of all possible states, the worst is probably that arrived at by a process not so much of solution as of dissolution or disintegration on the great principle of "grab"—"that those should take who have the power, and those should keep who can," surgeons and obstetricians agreeing (or disagreeing) to scramble for cases.

What, then, it may be asked, are the principles which should guide us to a conclusion when the subject is debated? First, that general hospitals should be or become capable of undertaking and teaching any department of practice without resort to special hospitals. Secondly, that to attain satisfactory results concentration of material is absolutely necessary. This means that at each medical school some one person should be appointed to perform ovariotomies for a term of years. The question whether the ovariotomist should be one of the surgeons or the obstetric physician, although practically the NEBUCHADNEZZAR'S furnace of the whole controversy to the parties concerned, seems to us a matter of far less importance. There are attached to some hospitals obstetric physicians who are also thoroughly skilful and competent surgeons, while at other hospitals the same cannot be said. The subject can conveniently be approached from either side. To the obstetric physician pelvic anatomy and the growth of pelvic tumours are (or should be) more familiar than to the surgeon; to the surgeon the treatment of wounds is naturally more familiar than to the obstetric physician; both have advantages and both have disadvantages, but neither is competent to deal with abdominal surgery until such time as he shall have studied abdominal surgery. We confess that against the entrance of any person not specially skilled and experienced we should feel disposed to keep our own peritoneal cavity and those of our friends peremptorily closed. We do not believe that success is to be reached in any other way than that which we have indicated, and the opportunity of undertaking an occasional case will do the operator no further good than to enable him to answer in the affirmative the question of a possible patient or her adviser: "Have you ever done the operation?" The question should be discussed on far higher grounds.

With regard to the detail—how the question is to be decided (if raised) at any medical school—we should suggest that it would be better and fairer not to settle the matter in full conclave, on account of the necessary disparity of votes, but to refer it to an impartial and disinterested subcommittee, who should hear both sides and decide accordingly; and we would conclude with the opinion that these little domestic matters are best settled at home.

IN an article on Primary Education in Scotland, in *The Times* of the 6th inst., a very remarkable fact is stated: that "not only has no sound of the cry of overpressure been heard from across the Tweed, but, as a fact, nothing has been done outside the sewing schedule to provide against the practice and the ill effects of overpressure." Considering the outcry which has been raised in England on this subject, it appears important to ascertain in what respects the school system of the two countries differs in its working, and if such difference may account for this remarkable fact. The results obtained as the outcome of the system negative the supposition of a difference in the amount of work exacted from the children. "Standard by standard, Scotland scores above England without a single exception; and in the summary of results, Scotland passed 92·59 per cent. in reading (England 89·14), 90·22 per cent. in writing (England 82·03 and 85·99 per cent. in arithmetic (England 77·51), making a general percentage of 89·6, against 82·9 in England." Not only in the three "R's" did Scotland take the lead, but in the specific subjects. "In England under 10 per cent. of the separate departments examined under the new code took up these subjects, and the number of children examined in them was 2¼ per cent. of all the children in average attendance in all the schools inspected during that period. But in Scotland 55 per cent. of all the several departments presented scholars for examination in specific subjects, and the number of children so presented was 14 per cent. of all in average attendance." These statistical facts appear to show clearly that the difference in the results upon health has not been gained at the expense of the knowledge to be acquired through the medium of the school. There is a point to which we have not yet adverted which may not improbably have a marked influence upon the question of overpressure, and that is the difference in the ages of the scholars in the two divisions of the kingdom. In England 9·74 per cent. of the number on the books were under five years of age, while in Scotland the

proportion was only 2·2 per cent.; or, calculating the proportion on the numbers living between the ages of two and five years, twenty are at school in England and only four in Scotland. This difference seems to call for a careful inquiry into the ages of the children who are alleged to suffer from over-pressure. If it should prove to be among the younger children, it is obvious that some change is required in the amount of teaching, or the mode in which instruction is imparted at the earlier ages. Another very important point for inquiry is into the amount of confinement in the schoolrooms (seldom sufficiently ventilated) to which these younger ones are subjected. It is in them that the evils of crowding and of a long continuance of breathing a vitiated atmosphere may be expected to be most fully and most quickly developed. A careful compilation of accurate numerical facts, a comparison of those only which are strictly comparable, and a separation of the data relating to large towns, small towns, and rural districts, are all requisite to ensure accurate deductions on this important question. We trust the subject may be taken up by some competent person who has access to the documents necessary for such an inquiry, and whose object is to arrive at the truth, without any regard to upholding existing systems or substituting for them impracticable crotchets.

THE sense of almost absolute hopelessness which one feels as regards the cause of medical reform is not mitigated by the account of the discussion of the subject at the late meeting of the British Medical Association. The principal speakers were Dr. WATERS, Dr. CAMERON, M.P., Dr. JACOB, Dr. B. O'CONNOR, Dr. GRIMSHAW, Professor STOKES, and Mr. HART. Dr. WATERS, in the absence of any recent triumphs of the Association in the arena of medical reform, recounted the victories implied in the Act of 1858. It is time to stop all boasting of this kind in the sense of shame and disappointment at the present impotence of either the profession or the Association to procure legislation having for its object the amendment of that very imperfect piece of Parliamentary work. This Act put the interests of medical education into the hands of a body from which the representatives of the profession itself are excluded, and in which the representatives of medical corporations which have their pecuniary interests in low examinations are powerful, if not predominant. We admit cheerfully the untiring and self-denying labours of Dr. WATERS, and see with regret the manifestation of a disposition to disparage and supplant him. But he and his colleagues are not without blame. He and the Reform Committee are a little too self-complacent in regard to past achievements, and have shown too great a readiness to concede everything, and take anything that is called a Medical Bill, however mutilated or eviscerated. At the meeting at Belfast last week, it was practically admitted that the Reform Committee have been unfaithful to the fundamental principle of medical reform—a one-portal examination—in which the representatives of all the medical authorities should be represented. It was also stated that the Committee in the recent session came to the conclusion that it was for the *Government* to consider the amendments of Sir LYON PLAYFAIR, which amendments the Committee determined not to oppose. When did the Association so lose its sense of power? When did it discover that it was no part of its duty to oppose even the Government yielding to the pressure of Sir LYON PLAYFAIR on a fundamental matter? There have been times when the Association had opinions of its own, and when it had the courage of its opinions; when it dared to say, or to join others in saying, that it would be no party to a mutilated Bill. In 1870 it refused a Bill without the principle of direct representation as we ourselves did; and now we find it conceded on all hands. But if anyone had said in 1870 that Dr. WATERS and his colleagues would live to accept a Bill from the Government without the principle of a one-portal or conjoint board, he would have been judged to speak in ignorance of men and of the great principles involved. But this is what things have come to. The Reform Committee—not with its recent ominous infusion of new blood, but under its old constitution—came to the humbling conclusion that "it was for the Government" to consider amendments fatal to the fundamental views of the Committee and the profession, and "the Committee did not oppose them"! Never was there a more humiliating surrender on the part of men once powerfully representing a great Association. We cannot call it a mere surrender; we must characterise their conduct as in the highest degree unfaithful to their own record and to the commission which they had received from the Association. We think Dr. WATERS will agree with us that he had no authority from the Association to accept a Bill without the principle of a conjoint board, and that when he and his colleagues agreed to do so, or to connive at the Government doing so, they were acting on their individual judgments and betraying a vital principle they were appointed to support—a principle asserted by the Medical Council and by the Royal Commission, and accepted in every Government Bill for the amendment of the very imperfect Act of 1858.

We leave these gentlemen to their own reflections, and wish them joy of their new colleagues in the Committee, one of whom, Dr. B. O'CONNOR, with a modesty that cannot be too much admired, contrives to imply that if "fifty or sixty" amendments had been accepted the Bill might now have been law. Dr. JACOB really has many of the instincts of a medical reformer; but from some cause or other he is "sore let and hindered." We do not do him the injustice to believe that he would approve the amendments which bristled on the notice paper, and which, as a reasonable Irishman, he must see were meant to produce the miscarriage of the Bill. But for some reason or other, whenever a medical bill is on the eve of success, Dr. JACOB curiously finds many points of sympathy with its enemies, and when the hare is in sore need of friends he comes in in full cry with the hounds. Dr. JACOB wants reform, but it must "not necessarily disturb existing licensing institutions." It is impossible to get medical reform without disturbing existing licensing institutions, and a reformer who is so connected with institutions as to make this condition had better leave reform work to others.

It is far better to admit the utter hopelessness of the cause of medical reform, and to leave students to be fleeced and worried and tempted by rival diploma "shops"—to use Sir DOMINIC CORRIGAN'S expression,—than to expect reform from such quarters. It is far better to see that, in the present state of Parliamentary procedure and parties, medical

institutions in England are entirely at the mercy of Scotland and Ireland, and to hope for better times. At least, we shall be no parties to reforms so delusive and so unfaithful to the profession and to the public, and we do not doubt that we express the feelings of the profession and even of the Association.

Annotations.

"Ne quid nimis."

DR. KLEIN ON THE CHOLERA BACILLUS.

THE following passage in his papers on Micro-organisms and Disease, now appearing in the *Practitioner*, indicates the opinion which Dr. Klein at present holds respecting the comma bacillus; and it will be interesting to observe whether the extended personal research he is about to undertake in India will serve to alter the somewhat sceptical attitude he here maintains respecting Koch's discovery. Dr. Klein says:—"In the reports from India by Dr. Koch, as the head of the German Commission sent to investigate the recent outbreak of cholera in Egypt, we notice that, like the French Commission, they failed to communicate the disease to animals; that the German Commission failed to discover any specific organism in the blood of patients suffering from cholera; that the intestines contained in their cavity and walls numerous peculiar 'comma-shaped' bacilli, which Koch considers to have a special relation to the disease. Considering the state of the intestine in this disease, the presence of the bacilli, however peculiar, in its walls is in itself not convincing proof of their specific nature. Considering, also, that animals are as yet found insusceptible to cholera, artificial cultivations of the bacilli, successfully accomplished by Koch, cannot be tested. From the artificial cultivations of these comma-shaped bacilli Koch learned that it is necessary that the nourishing medium should have an alkaline reaction, and that the bacilli are easily killed by drying. Koch found these comma-shaped bacilli in linen soiled by the cholera dejecta, also in the water of a tank that had produced cholera in several people who had partaken of it. As soon as the bacilli disappeared in this water cholera cases ceased. My friend Mr. A. Lingard has placed at my disposal sections through the human intestine from cases of dysentery; there are seen in the superficial parts of the necrosed mucous membrane large numbers of putrefactive bacilli. In some cases, however, in the depth of the tissue there are found, amongst the extravasated blood-corpuscles, numbers of very fine, long, straight, or, more commonly, curved bacilli and bacillus filaments; some are distinctly made up of a chain of long bacilli. They stain well and conspicuously in methyl blue."

THE REPEAL OF THE PATENT MEDICINES STAMP ACT.

THE question of the repeal of this obnoxious tax continues to excite considerable attention both in and out of Parliament. In *The Times* of the 7th inst. there appears a remarkably able letter, signed "A Member of the Royal College of Physicians," in which the facts of the case are set forth very clearly. The matter is one of such far-reaching importance, that its ventilation in the public press is not only expedient, but necessary. "Is it conceivable," says the writer in question, "that the Act of 1812 was ever contemplated to lay an embargo upon some nine-tenths of all pharmaceutical preparations? Could any rational man suppose that it was to range side by side a 'convulsion oil' and sulphate of cinchonidine or quinine wine? Anyone at all conversant with the history of medicine and therapeutics, or the science which presides over the rational study of the physiological action of drugs, must be aware that in 1812 empiricism was the queen-mother of the healing art, and made her fiat supreme; while therapeutics as a science was yet to be born, pharmacy was of the rudest description, and was restricted within the narrowest domain. Such considerations, one would have thought, might have tempered the zeal of Somerset House with a spice of common sense." Appended to the Act is a schedule in which are included some five or six hundred quack salves and catch-penny panaceas, most of which have fortunately long since passed into the realms of oblivion; but intermingled with quack "cooling opening pills" and bogus "pectoral lozenges," there appear the words "foreign medicines of all kinds, except drugs." To the uninitiated this clause may appear harmless enough, but its full force will be realised when it is considered that many of our most valued preparations are manufactured abroad, and can only there be made, as it is essential that they should be concocted from foreign plants, and while these are yet fresh. Referring to the responsibility incurred by any Government which permits the unrestricted sale of deadly poisons under the guise of "patent medicines," it is pointed out that no measure short of the total repeal of the Act will prove of the slightest avail. Dr. Balthazar Foster, in a letter to *The Times* of Wednesday last, speaks of it as a law not only indefensible as a matter of commercial policy, but decidedly injurious to the public health. Passed originally as a means of raising revenue for the war against Napoleon, it has survived till the present day, in direct contravention of our policy of free trade, till now, under its most recent interpretation, it threatens to cripple commercial enterprise and obstruct scientific inquiry. Its baleful effects in giving a *quasi*-Government sanction to many worthless preparations, and thus bolstering up a nefarious traffic, cannot be too strongly condemned, more especially as the poor and the ignorant are the chief sufferers." It is a source of satisfaction that the subject has been so warmly taken up not only by the "Member of the Royal College of Physicians," but by the London and provincial press generally, many of the leading journals devoting long articles to the subject, and all, without exception, advocating the adoption of prompt and energetic measures. In *The Times* it is pointed out that, if a medicine be good, it is assuredly unjust to raise its price by a tax; while, if it be deleterious, or if it does not possess the properties which its makers claim for it, it is wrong that it should bear a Government label which may mislead the buyer. "In its origin, doubtless the Act was partly intended to stop the traffic in cheap unlicensed drugs which once could be hawked in the streets, but it has long outgrown its uses in this respect." The attention of the House of Commons, as our readers are aware, was drawn to the subject by a series of pertinent questions by Mr. T. P. O'Connor, who asked the Chancellor of the Exchequer if his attention had been called to recent articles in THE LANCET advocating the repeal of the Act; if he had any information to confirm the statement that the Act, instead of discouraging, stimulated largely the sale of quack medicines; and whether he was aware that the large number of deaths that occurred annually in children was on good authority attributed to the administration of poisons in the shape of secret medicines. Mr. Childers, in reply, practically admitted the truth of the statements implied in the questions, and undertook to obtain from the Board of Inland Revenue a report on the subject, which he promised to study carefully. He added that he could hold out no hope of repealing a tax which brought in £160,000 a year. This answer must, of course, be considered as being merely tentative, and we are convinced that when the Chancellor of the Exchequer is fully informed of the circumstances of the case, he will at once see that the repeal of the Act is

imperatively demanded. No Government can afford to maintain a tax which doubles and trebles our infant mortality. It is perhaps not generally known that soothing syrups and other noxious preparations containing opium are responsible for over 40 per cent. of all deaths from poisoning in England, whilst in no other European country does the death-rate from this cause exceed 1 per cent. We are glad to find that notice has already been given by the member for Galway of his intention to introduce, at the earliest possible moment, a Bill for the repeal of the Act. Its retention would be not only a disgrace but a national misfortune.

PREVENTION OF HYDROPHOBIA.

FRENCH science may indeed claim a new title to the gratitude of humanity. Whilst granting this, we do not wish to rush to the hasty conclusion that hydrophobia is to be banished from our midst; only, if we can believe our eyes and ears, it seems that we are within measurable distance of this glad state. What has Pasteur done? He has—if our information be accurate, and we have no reason to doubt it—done something to twenty-three dogs, thereby rendering them, at any rate for a time, incapable of suffering from rabies. Side by side with the free animals he has placed others which may be regarded as servile to the yoke of hydrophobia. Of the latter series, six were bitten by mad dogs, three of them becoming mad; eight were subjected to intravenous inoculation, all becoming mad; and five to inoculation by trepanning, all likewise becoming mad. On this showing, sixteen out of nineteen dogs died when a dose of the virus of rabies was sewn in them; whereas, of twenty-three protected dogs, none succumbed, although the virus was brought in the most effectual manner into the tissues of each animal. It is a well-known fact that many more persons are bitten by rabid animals than suffer from hydrophobia. What the exact proportion may be is not satisfactorily known, but in dogs it would appear that about half the number bitten become rabid. There are two explanations of the escape. The first is expressed by saying that no virus gets into the tissues of the body. The second suggestion, though possible, is less plain. It is to the effect that some organisms are unsuitable for the development of the rabid poison. There is analogy for this contention. Some individuals are believed to be insusceptible to the poison of scarlet fever, and this statement also applies to other acute specific diseases. The questioner of nature may ask how these facts are to be explained? And although we are on very unsafe ground, still science does afford some clue to a possible explanation. If we remember rightly, Sir James Paget has asserted his belief that a severe attack of typhoid fever may do away with the protection afforded by a previous attack of small-pox. Typhoid fever so modifies the constitution that the protoplasmic organism once again becomes favourable to the growth and development of the germs of small-pox. Inoculation with the attenuated virus of hydrophobia gives a dog immunity from the disease, just as similar treatment preserves a sheep from charbon; in other words, the physical basis of the canine organism is so altered that it no longer affords nourishment for the evolution of the poison of rabies. We cannot help giving expression to another idea in this connexion. A modification of the constitution may be effected by other means than inoculation with thinned virus. Is it not possible that some of those bitten by mad dogs do not become hydrophobic because they belong to a particular diathesis, the material basis of which is not favourable to the development of the germs of rabies? Supposing, for the moment, that individuals of the gouty type were insusceptible of hydrophobia: we might easily understand how external circumstances would be able to modify the physical basis of the organism; how, in short, the soil might be transformed so as no longer to afford nourishment for a particular plant. But these are pure speculations, and not the kind of wares which the practical physician would care to deal in. The announcement that the Commission charged by the French Government to investigate the assertions of M. Pasteur has fully confirmed the discoveries of the great chemist is at present the object which commands our attention. The Committee proposes hereafter to make further experiments as to the duration of the immunity afforded after preventive inoculation; and, further, it proposes to investigate the point whether inoculation with attenuated virus will save an animal already bitten by a mad dog. A word of scientific caution before we finish. It is imperative on Englishmen to institute an experimental inquiry on hydrophobia, not only for the sake of the honour of their country, but also for the sake of truth and science. No fact of importance can be too firmly established, and no truth can be too highly burnished.

PIGMENTATION OF BRAIN.

ALTERATIONS of colour are amongst the most striking changes which the pathologist encounters. It has now for some time been held that all pigmentations, whether physiological or otherwise, own the same physical origin—viz., hæmoglobin. Although the end and the beginning of the materials concerned in the process of pigmentation may thus be said to be known, there nevertheless remains for investigation the whole field of intermediate changes. M. Baillarger has recently published several cases of slate-coloured alteration of the brain, and has endeavoured to determine the relationship of this lesion with the sacral eschars so often observed in the paralysed insane. The discolouration, more or less marked, was found to be accurately limited to the grey matter of the cerebral cortex. The most frequent sites of the change were the base and posterior parts of the cerebrum, though it was also seen on the upper surface of the cerebral hemispheres, and was always well marked about the Sylvian fissures. The arachnoid and pia mater sometimes showed no other alteration than that usually met with in cases of general paralysis, but more often a greyish purulent infiltration was detected. The slate-coloured change was not discovered in cases of paralytic dementia only, though it was more commonly seen in this disease than any other. The cerebro-spinal lesions which may come on after sacral sloughing belong to three classes. These sacral diseases may set up the slate-coloured pigmentation with purulent meningitis, or either of the alterations alone. The author asserts that the *coloration ardoisée* of a part of the cerebral convolutions is evidence of sacral sores in the absence of cranial lesions and purulent otitis.

THE PHYSICAL TRAINING OF GIRLS.

MR. NOBLE SMITH'S lecture, delivered a fortnight ago at the Health Exhibition, on "Postures in School," touched a vital point in our social management. The lecturer dealt with some of the errors of attitude and exercise which prevail in the recognised training of girls at school, and which have been found to interfere most seriously with their physical development. After adverting to the slowness of ossification in the long bones and vertebræ, in condemnation of the practice of forced walking or sitting up, so commonly adopted with infants of either sex, he proceeded to make the general statement that freedom, not restraint, of posture must rule the carriage of growing girls, especially at school. With boys there is no need for such a rule. Designed for active life, the liberty of their joints and muscles is allowed them. For girls, on the contrary, though action enters largely into healthy womanhood, antique pre-physiological

decorum has provided many needless restrictions. In class hours they must sit erect with unsupported backs, and afterwards endure the monotony of piano practice in the same constrained position. The play-hour brings no sufficient change, but is passed in sedentary quiet or in regimental marching. All this implies too little variation of movement to secure the benefit of exercise, and a too conventional dread of ease to allow that task-work should generally become a prompt or willing service. Mr. Noble Smith very fairly demands a change in this stilted arrangement. He asks that suitable backs should be attached to all school seats, that desks should be so contrived as to height and slope that they may be leant upon and become a means of relieving spinal tension without producing a chest-contracting stoop, that the light for equally good reasons should fall from left to right, and particularly that the period of piano practice should be strictly moderated. In regard to muscular recreation for girls, we have long maintained that almost unlimited variety as to method may safely be conceded to them, and this opinion is plainly expressed in the lecture under discussion. Lawn tennis, gymnastics, swimming (an art too little favoured by men as well as women), and cricket even, all come in for a share of commendation. Let us add but one caution to this part of an admirable paper—namely, that while there is little need of restriction as to the kind of athletic play, there is real occasion for its limitation as to time and degree. The healthy growth of both sexes depends upon the same conditions supplied to each in its own measure.

DECUSSATION OF NERVES.

PERHAPS in the majority of individuals the pyramidal tracts decussate at their well-known site in such a manner that the bulk of the fibres of one side passes over to the opposite lateral column of the spinal cord, whilst the small remainder continues downwards in the anterior column. This arrangement is, however, subject to considerable variation, and nothing can be positively asserted until a systematic investigation has been made, which is practically impossible in man. Nevertheless, the knowledge which is expressed in the preceding sentences may be regarded as legitimate inferences from a study of diseases of the brain. From careful clinical observation, it seems not at all improbable that further complexity ought to be introduced into the anatomy of the nerve-paths in the brain. Secondary degenerations of cerebral origin are sometimes exclusively confined to the opposite lateral column of the cord; sometimes to the opposite lateral column and the internal part of the anterior column of the same side as the cerebral lesion. Pitrès has also collected ten cases of unilateral cerebral lesion, in which the secondary degeneration occupied both lateral columns of the spinal cord. The cerebral disease varied in its nature, extent, and site; the secondary sclerosis traversed the peduncles, pons, and anterior pyramid, and then abruptly became bilateral below the decussation of the pyramids. The secondary changes were sometimes exactly symmetrical, sometimes more marked on the same side. The columns of Türck were generally spared, or presented but slight damage, whilst the other structures of the cord were normal. M. Pitrès has sought to explain the coexistence of symmetrical medullary lesions with unilateral disease of the brain. His explanation is founded on the individual variations of the decussation of the pyramids as described by Türck and Fleming. There may be simply a crossed pyramidal tract, or there may be a direct as well as a crossed pyramidal tract, and each may bear almost any numerical relation one to the other. Further, the pyramidal tracts of the two sides of the brain may or may not proceed after the same plan; the decussation may be complete for one tract and incomplete for the other. In certain subjects it seems possible that the fibres of one pyramidal tract in the bulb may split into two portions, one of which may proceed down the opposite lateral column, whilst the other descends in the lateral column of the same side. The disturbance of balance and progression appears to be more persistent and more grave when the secondary sclerosis is bilateral than when it is unilateral. Partial paraplegia, exaggeration of the knee-jerk, and contracture of the lower limbs may exist, however, where the sclerosis is unilateral.

METROPOLITAN ASYLUMS AND THE HOUSING OF THE POOR.

THE Royal Commissioners on the Housing of the Poor have apparently found reason to appreciate the difficulty pointed out by Mr. George Sims some months ago as to where the very poor shall live while the slums are being demolished, and the dwellings intended to replace them are as yet unbuilt. Mr. Torrens's proposal, that the prisons and lunatic asylums of the metropolis should be removed into the country and their present acreage devoted to the use of the Commissioners, is a plan worthy of consideration. The question of expense is one with which the Commissioners are probably more conversant than anyone else. It is here, if anywhere, that objection is likely to be found. The advantage to the poor which would arise from such a plan is obvious. Building would then proceed unchecked by the difficulty we have referred to, and the transplanted population would gain in health by breathing the air of neighbourhoods which always were more pure than those from which they came. These latter could then be cleared, purified, and built on at leisure. The inmates of the removed institutions would profit in an equal or greater degree by the change from town to country; they would be comparatively out of range of prevalent epidemics, while their safe keeping would be the more assured by their detachment from the Alsatias of crime and poverty which surrounded them in the city. In so far the proposal is a good one, but various considerations of practical convenience must be taken into account when it is discussed, and the question we anticipate will have to be decided on other grounds besides those of philanthropy or sanitary advantage.

HINTS AS TO SUNSTROKE.

A DAILY temperature of from 80° to 90° in the shade, such as we have somewhat uneasily enjoyed during the last three weeks, has not failed to leave its mark for evil as well as good on living objects exposed to it. Fortunately, vegetation gains more than it loses by a continuance of dry and warm weather. It is not so with all of the human population. Already, by ones and twos, the year's total of deaths from sunstroke is mounting up, and preventive measures, little needed in an ordinary summer, have become imperative under the present tropical conditions. A month ago we referred to the risks incurred by children and certain older persons whose heads were often carelessly exposed to the sun's glare without any adequate covering. The need of care which then existed has since much increased. Field-workers and holiday-makers have multiplied tenfold, and with one and all the weather, and how to meet it, is the first consideration. The causes of sunstroke are several. Thus, while we trace the continuity of cause and effect best after direct exposure to the solar rays, we cannot ignore the fact that mere excessive summer heat, intensified and aided by confinement in small or imperfectly ventilated spaces, is equally effectual to the same end. Various circumstances predispose to insolation. Prominent among these is the common and generally senseless habit of using

stimulants to quench thirst. The loss of the body by heat is chiefly water. The rational object of drinking in summer is therefore simply to make good this loss with as little stimulation of tissue as may be. Such stimulation tends to raise temperature by needlessly provoking chemical change, and is therefore manifestly prejudicial. He who would enjoy fresh air and sunshine without fear of injury should dress, eat, and drink as lightly as possible. Summer clothing should be, and usually is, light at least in texture. The head and back of the neck, in particular, require to be suitably covered. Many conveniences exist for this purpose. The tropical custom of wearing a damp handkerchief within the hat is occasionally useful. There should be no tight clothing, such as belts or stays, to impede the respiratory movements. All such impediment, by slowing the circulation, provides a condition favourable to heat-stroke. For the same reason excessive exercise or work is dangerous, through the exhaustion which follows it. Alterations in dress devised on these lines have wisely been adopted for the employés on the Metropolitan Railway. It would be well if some similar deviations in uniform were introduced, as far as practicable, by other companies, and in the Government services. Among other preventive measures, cold bathing in moderation must not be forgotten; for prevention, indeed, it is even more valuable than in the event of actual sunstroke, for which it forms a chief therapeutic agent. It is requisite, however, that before immersion the body should not be overheated by prolonged exertion or other cause.

INTEMPERATE MONEY-MAKING BY TEMPERANCE DRINKS.

A VERY sensible letter appeared in the *Echo* of Aug. 11th, in which the writer complained of the extortionate charge which is almost universally demanded for the sale of temperance drinks. No doubt it is fair that demand should stimulate and remunerate supply, but there is a limit to cost beyond which all relation between it and value of material is lost. It must have struck many a one before now that lemonade and ginger-beer at fourpence or sixpence per glass implies a profit to the seller which is simply dishonest in its excess. Probably the cost of manufacture does not amount to one-fifth of this. There does not yet exist any legal restrictions on the sale of such beverages, and, if possible, it were better to meet the evil of overcharge by common agreement on a scale of reasonable prices without recourse to any system of licence. As a mere necessity of public health, it is to be hoped that a branch of industry which has hitherto enjoyed the countenance of all classes because of the justice and reason of its procedure, shall not be suffered to incur damage from the indiscretion of those who live by it.

DETECTION OF BRUCINE AND STRYCHNINE.

THE following tests for these substances are proposed by Dr. O. Lindt (*Pharmaceutical Journal*). For brucine a convenient test is selenic acid containing nitric acid (five drops of selenic acid, of sp. gr. 1·4, and one to two drops of nitric acid, of sp. gr. 1·2). If the fatty oil is first removed from sections of Strychnos nux vomica and S. ignatii by petroleum ether and this reagent used, the laminated cell-walls quickly take on a bright red colour, which gradually turns to orange and yellow, while the cell cavity and the granular substance contained in it remain uncoloured, indicating the absence of brucine. Nitric acid alone does not answer, the colouration of the alkaloid being marked by the formation of xantho-proteic acid. For the detection of strychnine Lindt discards the potassium bichromate reaction, because the violet colour is developed only in immediate contact with the crystal; and the solution of strychnine in sulphuric acid escapes so rapidly from the preparation that no conclusion can be drawn from a subsequent straining as to the original position of the alkaloid in the nux vomica seed. But it is readily shown by a solution of ceroxide sulphate in sulphuric acid, if the fatty oil, grape sugar and brucine have first been removed by maceration in petroleum ether and absolute alcohol. The reagent imparts a violet-blue colour to all the thickening layers of the cell-walls. But the colour quickly disappears, while the deposits of albumen assume a bluish opalescent tint, which finally turns to a reddish-violet. The interior of the cell becomes of an intense red colour. The reagent retains its activity for a considerable time. The microscope is, of course, necessary to follow all the details of these micro-chemical tests.

THE REMUNERATION OF A MEDICAL OFFICER OF HEALTH.

WE are sorry to see that an attempt is being made by some members of the rural sanitary authority of the Chesterfield Union to reduce the salary of Dr. Angus Mackintosh, their medical officer of health, and, so far as we can learn, the only plea which can be alleged for this step is that Dr. Mackintosh has so successfully devoted himself to his official duties, that it is just possible the work of supervising the health of the increasing population in this important sanitary district may in the future not be attended with quite so much labour as heretofore. Whether their contention be a correct one or not, we can hardly imagine circumstances more calculated to repress the energy and zeal which are so much needed in order to secure sanitary improvements, and we hope, both for their own sakes and in the interests of fair play, that the sanitary authority will not adhere to the decision at which they have arrived. The Local Government Board have so far objected to the reduction, and this to a large extent, on the grounds that Dr. Mackintosh has served his district well. It is to be hoped that this objection will be maintained, for if it is, the single vote by which a majority in favour of the reduction has been secured will probably disappear, and a majority holding opposite views may be obtained. The remuneration in this district is by no means high, and the services which have been rendered in it leave nothing to be desired.

A TOO HASTY DIAGNOSIS.

ON August 7th, at the Hants Assizes, before the Lord Chief Justice, an action was tried of the greatest importance to the medical profession. It appears that the plaintiff, Mr. Yarndley, whilst on yeomanry duty in June last became saddle-sore, a circumstance by no means uncommon to persons not in the habit of riding much. In order to protect the abraded skin he applied a handkerchief to the part. On his return home, his wife, not being satisfied in her mind as to the origin of the blood-stains, took the kerchief to a local practitioner (Dr. Pike), who pronounced in favour of the husband's misconduct. Nor did he retract his expressed opinion after he had personally examined the plaintiff at the invitation of the latter. Horrified at the charge made against him, Mr. Yarndley sought the advice of several doctors in the neighbourhood, who unanimously declared that the diagnosis made by Dr. Pike was incorrect, and, with true professional courtesy, advised him to withdraw it. For some reason or other Dr. Pike failed to do this; hence the action brought by the plaintiff to clear his character from the aspersions cast upon it. Apart from the fact that no manner of stain upon clothing could in itself be taken as proof of venereal disease, the circumstances were strongly suggestive of what was no doubt the real explanation, for the wound on the

thigh exactly corresponded with the blood-marks on the trousers. We do not for one moment suppose that the defendant acted from vindictive motives, nor without a *bonâ fide* belief in the accuracy of his diagnosis; but for all that, if the evidence before us can be relied upon, he showed a lamentable want of forethought and discretion, both in the first instance and afterwards, when his position was shown to be untenable. He ought to have carefully weighed every available fact, and acted with the greatest caution before venturing to give an opinion which would, in all likelihood, destroy the happiness of a home and leave the hapless husband under the stigma of immorality. It was to be regretted that the case was allowed to proceed to trial, but we are glad to state that the plaintiff allowed a juror to be withdrawn.

THE LIVERPOOL LUNACY CASE.

ON the 4th inst., in the Nisi Prius Court, before Mr. Justice Cave, the case of Good *v.* Whittle and others, which excited considerable interest, came on for hearing. The plaintiff, Mary Good, a Liverpool lady, brought an action for libel and conspiracy against Dr. Ewing Whittle and his son, Dr. Glynn Whittle, of Liverpool, and Drs. Richard Hutchinson and George William Mould, of Manchester. The libel complained of was the medical certificate of the defendants certifying that the plaintiff was of unsound mind, and on the authority of which she was locked up in a lunatic asylum at Cheadle; and the second ground of action was alleged conspiracy on the part of the doctors. The first three defendants were charged with having improperly given certificates of insanity, in consequence of which the plaintiff was confined in a lunatic asylum at Cheadle; and Dr. Mould, who was the keeper of the asylum, was charged with having received the plaintiff into the asylum on certificates which it must have been within his knowledge were insufficient. At the conclusion of the hearing, which was of great length, and in the course of which fourteen medical men were examined—four for the plaintiff and ten for the defence,—the jury, after two hours' consultation, returned a verdict for the defendants on all the questions submitted.

A STRANGE CASE OF MANSLAUGHTER.

A YOUNG woman, aged seventeen, has been charged with wilful murder and convicted of manslaughter, for killing a child, by tying a scarf round its neck to stop its crying while she was wheeling it before her in a perambulator—and at the time reading a book—so tightly that it died. We cannot but regard this as a case of more than common concern. It seems to us to point to a matter of the highest moment. Beyond question this young woman was so engrossed with her book that her intelligent will was suspended. The work she was reading was doubtless a novel of some exciting kind, and she was so affected by it that she could not either tolerate the interruption caused by the crying of the poor little child, or exercise a rational judgment as to what she did or had done to it. Unhappily, the mischievous effects of sensation literature are only too apparent throughout the population. A few days ago a boy hanged himself while trying to *realise* the description of an execution which he had been reading. It matters little whether the books read be good or bad in their aim; it is the fact of taking the mind out of its natural relation with the world of fact and placing it in the midst of a fictitious world that does the harm. Not only are the results of this distraction of the consciousness occasionally disastrous in regard to the occurrences of life—as in the instance to which our attention is now especially directed,—but serious injury is done to untrained minds by throwing them into a state which approximates to hypnotism. To read a novel, living and feeling in the scene it pictures to the mind, and at the same time to attend to the actual surroundings, without a very great strain, is impossible. Even practised readers know how, being engrossed with a subject of thought, they forget the scene around them. An untrained brain may do more than forget it; may become disordered in the endeavour to do two things at once. It is desirable to lay stress on cases like this. We are not prepared to say that this young woman ought to have been more severely punished, because, unless the evil nature of her crime were made plain, no deterrent effect would be produced by a heavy sentence. The offence was reading when engaged on duty. The manslaughter was an outcome of this fault. We do not suppose the convict had the slightest animosity to the child, and it is not necessary to suppose that she was of a particularly brutal or cruel disposition. It may be quite true that she does not remember what occurred. Her consciousness was busy with the book; what she did to the child was done with a half consciousness that busied itself only with results. The lesson to be learnt is one of public and domestic prudence. Servants and children should never be allowed to read while engaged in any sort of work. Divided attention involves mental distraction, and "derangement" may at any moment supervene.

INSTRUCTIONS AGAINST CHOLERA.

EVERY sanitary authority ought now to issue plain directions to householders, giving practical formulæ for disinfecting solutions, &c. Several circulars and pamphlets to this effect have reached us, all of which are very good. But some of them are vague, and do not give particulars. Among the best are—Precautions against Cholera, by Dr. J. Spottiswoode Cameron, medical officer of health for Huddersfield, printed by J. Broadbent and Co., of that town; Plain Instructions to Heads of Families and others, issued by the National Health Society, 44, Berners-street, to be had from Allman and Son, 67, New Oxford-street, at rates which only cover the cost of printing. Every parish or sanitary authority, we repeat, should feel responsible for sending such instructions to each householder, and for supplying gratuitously or on low terms solutions of the disinfectants recommended.

MICROBE AND MACROBE.

M. SEDILLOT, of the Académie de France, having discovered, or fancied he discovered, in 1878, a very minute organism of correspondingly short life, designated it a microbe. Exception was taken to the term on philological grounds; so he consulted M. Littré, and on Feb. 13th of that year, he received from the illustrious physician, Hellenist, and lexicographer the following reply: "Microbe and microbie are quite good words. To designate the animalcules I would give the preference to microbe: first, because it is shorter; next, because it reserves microbie, a feminine substantive, for the designation of the state of microbe." In another letter, dated May 13th of the same year, M. Littré adds: "It is quite true that *microbi* and *macrobi* signify in Greek short life and long life; but, as you justly observe, the question is not one of Greek, properly so called, but of the use our scientific language makes of Greek roots. Now the Greek language has *βίος* (life), of which the root may very well figure under the *be* or *bie*, with the sense of living, in *acrobie*, *anacrobie*, *microbe*. My feeling is not to reply to criticism, and let the word defend itself, which it will doubtless do." M. Sedillot, however, had afterwards to be told that, nearly a quarter of a century before him, Filippo Pacini, of Florence, had published in the *Gazzetta Medica Italiana* a demonstration of the minute organism in question, which (with all deference to M. Littré) he called by the still more exact name of "microbio," and had connected it with cholera as the proximate cause of that malady—the

"microbio colerigeno" (*vide* THE LANCET, August 2nd, 1884, p. 203). Macrobe, on the other hand, was in literary use and acceptation centuries before it received any pathological meaning—having been employed by Pomponius Mela, the Roman geographer, to designate a long-lived race of Ethiopians. What reader of Rabelais, moreover, has forgotten the title of Macrobio applied by the satirist to the aged chief of the inhabitants of one of the numerous islands on which Pantagruel and Panurge landed?

THE ISOLATION OF INFECTIOUS DISEASES AT BRISTOL.

A CIRCUMSTANCE is attracting attention at Bristol which indicates some error in the sanitary arrangements of the city. A child alleged to be suffering from fever has been refused admission into the hospital for infectious diseases belonging to the sanitary authority because that building is being reserved for cholera cases; in other words, a case needing isolation is not received merely because some other case also needing it may perhaps occur. This is by no means the first time that this anomaly has existed in Bristol, for we have more than once noticed that whilst scarlet fever was spreading fatally in the city, the hospital has been kept empty, professedly in case small-pox should be imported. If it be a fact that Bristol is so backward as to have made provision for one disease only, surely the disease which is actually present should not be allowed to spread for the sake of another which may never appear at all. The true remedy for Bristol will be that the city should provide ward pavilions for at least two current infectious diseases occurring in both sexes, and that it should also maintain an isolation building for any special emergency. Bristol has hitherto done but little towards preventing the spread of its current infectious diseases by isolation, and the reason doubtless is that it has not provided itself with adequate means for carrying out this important sanitary measure.

EXPENDITURE IN ABERDEEN INFIRMARY.

THE managers of this infirmary have unanimously adopted the report of a committee which has been examining the expenditure with a view to its reduction. The principal recommendations of the committee have reference to making a reasonable charge for domestic and private servants, reminding patients who can pay of the duty of contributing something to the hospital, and suggesting strict supervision of internal administration. One remark surprises us, that "there are undoubted prodigality and waste, chiefly in what is supplied to out-patients." We believe the London experience to be that very little is spent, much less wasted, on out-patients. A table is given of the respective cost for certain articles in Aberdeen and Dundee, there being about forty more patients daily in the Aberdeen Infirmary. The cost for wine, spirits, and porter in Aberdeen was, for 1883, £283; in Dundee, £62.

SALT AS A PREVENTIVE OF CHOLERA.

A RESPECTED correspondent, styling himself "Vigilans," has sent us a lengthy communication on this subject, which was fully discussed in the Indian papers about twenty years ago. Some valuable evidence as to the physiological value of salt was adduced by Mr. F. C. Brown, of Anjarikandy, in Malabar. This gentleman asserted that while cholera was devastating the surrounding districts not one fatal case occurred amongst the labourers on his estate. This freedom from the scourge was attributed by him solely to the fact that his men were allowed salt without stint; and so far as could be ascertained, no other circumstance was present to participate in the result.

THE FLY PLAGUE.

THE long spell of hot weather we have experienced has not been without its disadvantages, and among these must be mentioned the annoyance caused by flies to both man and beast. Horses have more especially suffered, and their sufferings have been rendered all the more general and acute from the stupid and useless mutilation to which they are subjected in being "docked." This consists in the very painful operation of chopping off more or less of their tail, cutting through the coccygeal bones, muscles, nerves, and bloodvessels, and for ever after depriving the horse of one of its beauties and most useful defences against insects, to whose attacks it is very much exposed. This fashionable mutilation, the result of a depraved taste, has now become so common, that, whereas a few years ago very few horses had to undergo it, there is scarcely one to be found which has not had one-half or two-thirds of its tail lopped off by the horse-dealer, roadside farrier, or veterinary surgeon. Consequently, the agony endured from the operation is trifling in comparison with that which horses experience from the flies, against which they have no protection when subjected to this unreasonable and damaging curtailment. Various expedients have been resorted to, with the view of driving away these troublesome insects, and some of them are worth a trial, as they are likely to be successful. Paraffin, petroleum, or a strong solution of carbolic acid or carbolised oil, may be applied to the hairs of the forelock, mane, and tail, or bits of sponge or woollen cloth saturated with these and attached to the bridle, collar, and crupper strap may be used. A solution of Macdougall's sheep dip answers well when sponged over the skin, as does also Jey's disinfecting fluid. People who ride or drive, or who commiserate their horses when in fly-haunted stables, might advantageously resort to something of this kind, should the creatures suffer from the folly of fashion in being deprived of their tails.

BITE OF A RAT.

IN medicine there are very few pathognomonic symptoms. This statement is equivalent to saying that many diseases present pretty much the same symptoms. Hence the proverbial difficulty of diagnosis. Whether some phenomena observed by M. Millot-Carpentier were really or apparently those of rabies must remain doubtful. A patient's hand was bitten by a rat; the resulting wound completely healed at the end of fifteen days, but was followed by a painful swelling of the forearm, attended with fever, which also passed away; in another fifteen days a purpuric eruption appeared, which also in its turn was succeeded by certain strange nervous symptoms resembling those of hydrophobia. The neurosis lasted for a month, after which the patient remained in good health.

REDWATER.

THIS disease of cattle has been studied by Dr. Berry and Mr. Hutcheon, and is regarded as an infectious disease, which spreads through the medium of the food or drink contaminated by the droppings of the infected animals. The period of incubation is said to be fourteen days. The urine in a well-marked case is of a port-wine colour, and becomes almost solid with heat. No red blood-discs are seen in the urine when the microscope is employed. The condition of the urine (hæmatinuria) generally lasts four or five days, and is very fatal. The spleen becomes greatly enlarged, softened, and diffluent. A bacillus has been detected in the blood of the spleen, which has been named bacillus hæmatinuriæ. The microbe was demonstrated by drying in the air a thin film of blood on a cover-slip. A drop of glacial acetic acid is allowed to remain on the film for a few seconds. After this the cover-

slip is washed in distilled water, then dried again over the flame of a spirit lamp; next floated for four minutes on a few drops of warmed "gentian-violet" or "amaranth"; washing in rectified spirit, drying, and mounting in Canada balsam complete the essential part of the process for demonstrating the bacillus, which is shorter and thicker than bacillus anthracis. No bacilli were found in the urine.

THE LATE PROFESSOR FRANCESCO CORTESE.

THE fellow-townsmen of this distinguished head of the Army Medical Department of Italy, whose death in Rome last October was the subject of a notice in THE LANCET, have just raised to his honour, in Treviso, Province of Venetia, a memorial tablet, placed in the façade of the house in which he was born. The inscription, a translation of which we subjoin, is from the pen of Senator Tommaso Vallauri, the most proficient of contemporary Italian latinists: "In this house was born, on the 12th of February, 1802, Francesco Cortese, who, as Professor of Anatomy in the University of Padua, shed lustre on the chair by his lectures and his writings; as army-surgeon in the War of Independence he deserved nobly of his country; and having risen to high honour, he obtained the supreme rank of head of the medical staff in the Italian army. He died in Rome, to universal regret, on the 24th of October, 1883. To perpetuate the memory of their illustrious fellow-citizen the Town Council of Treviso placed this stone."

BOOKS FOR HOSPITAL PATIENTS.

AN appeal has been made on behalf of the patients in the City of London Hospital, Victoria-park, for books or periodicals of a wholesome and interesting kind. Reading is the form of mental diversion to which educated people most naturally turn, and if this is the case in health when so many other amusements are possible, it is doubly so during sickness and convalescence when quiet is as needful as change is tantalising. Parcels must be prepaid. Donors of books will readily understand that the small charge on carriage, which is as nothing to each of them, may during the construction of a small library amount to a deduction neither handsome nor charitable from the already taxed resources of a hospital. Is it hardly necessary to add that no hospital or infirmary is so overstocked with literature at the disposal of patients, but that the want expressed by the City of London Hospital is felt in it also.

WOOLSORTERS' DISEASE.

WE are glad to learn that on the 8th inst. a conference was held at the Bradford Town Hall between the employers and the employed of those engaged in the worsted trade, and the sub-committee of the Bradford Sanitary Committee, to draw up a code of regulations for the prevention of woolsorters' disease. The proposed regulations, after some modifications, were unanimously adopted; and a very good feeling of reciprocity was displayed between the masters and the men on the subject, the former expressing their readiness to adopt any measures to prevent infection amongst their employés.

CHOLERA AND RAGS.

A NEW order has been issued by the Local Government Board prohibiting, until the 15th of September next, the importation, or delivery for exportation, of any rags from France, unless the rags have previously been proved to the sanitary authority not to have come directly or indirectly from any infected place. All rags contravening the order may be destroyed on the advice of the medical officer of the port.

A LARYNGEAL NEUROSIS.

A FORM of laryngeal neurosis, which is probably not widely known, has been treated of some months ago by Dr. McBride, and still more recently by Dr. Russell in the *Birmingham Medical Review*. Charcot has recorded the notes of four cases, and he regards the affection as a laryngeal vertigo analogous to Menière's disease, the afferent path being the superior laryngeal nerve. The main features of the attack is a sudden falling on the ground, immediately preceded by a short dry cough, and sometimes by spasmodic breathing; unconsciousness has been more frequently observed than not. Subjectively, the patient is almost always annoyed by a tickling or burning sensation in the larynx. Some local hyperæmia, or a "granular" condition of the throat, is nearly always present, and marked benefit has been derived from local medication and the internal administration of bromide.

THE HEALTH OF IDIOTS.

DR. SHUTTLEWORTH'S paper on "The Health and Physical Development of Idiots as compared with Mentally Sound Children of the same Age" is full of significance, and will be perused with much interest. We cannot, however, withhold the expression of a wish that the author had occupied himself more practically with the question how far the health and physical development of idiots throw light on the causation of their mental disability. It is not so important to them whether idiots die earlier or live longer than some children of their age, as it is to ascertain by the study of vital statistics and by the investigation of physical facts, whether preventable disease contributes to the production of idiocy. The value of Dr. Shuttleworth's paper is great, but it would have been still greater if it had dealt more directly with the subject of physical causation.

THE CHOLERA.

AT the time of going to press, we are glad to be able to state that we have not received a report of the occurrence of a single case of Asiatic cholera in any of the London hospitals, or in any part of England, Scotland, or Ireland.

ON the 8th inst., Mr. Durham performed an amputation at the left hip-joint, in the theatre of Guy's Hospital, on account of extensive epithelioma of the thigh and buttock. The operation lasted about twenty minutes, during which time the common iliac artery was compressed by Mr. Rich Davy, and very little blood was lost. The man, however, never rallied, and died twenty-four hours after. The rectum was carefully examined; there was no abrasion of its mucous membrane, nor blood in the bowel; only a small spot of arborescent capillary injection was seen in the submucous coat at a point about ten inches from the anus. In the above operation the use of the rectal lever was exemplified.

MESSRS. WEISS AND SON have just made for the Hon. James White, M.L.C., a magnificent surgical instrument case for the Prince Alfred Hospital, Sydney. It is made of the choicest mahogany and plate glass, is all of the very best workmanship, and will form a handsome feature in any operating theatre.

THE Indian medical journals announce the death of T. K. Rogers, Indian Medical Service, which took place in Madras on June 12th, from typhoid fever. The deceased had entered the service in 1877, and was Professor of Chemistry in the Madras Medical College and Chemical Analyst to the Government of Madras.

IN response to an appeal by the vestry of St. James's, Westminster, that the Government should introduce legislation conferring on local authorities a general power of control over the erection and maintenance of overhead wires, a letter has been received from the Local Government Board, stating that it would be impossibla to deal with the subject by legislation this session, and the Government cannot now say what Bills they will introduce next session, but there would probably be an advantage if a Select Committee were appointed to inquire into the subject, and the Board will consider whether steps should be taken early next year with this view.

ON the 8th inst., in the House of Commons, Sir Charles Dilke stated that the Local Government Board are not at the present time in possession of precise information as to the cost now being incurred in deodorising the sewage of London. Permanganate of potash has not been used to any considerable extent, only between three and four tons having been delivered, at a cost of about £130 per ton. Between July 10th and August 1st, perchloride of lime, to the extent of, on an average, about thirty tons per day, has been mixed with the sewage discharged at Crossness and Barking, the price of chloride of lime being about £9 per ton.

THE Sanitary Institute of Great Britain are making an effort to bring together the official reports and papers of the late Dr. Farr, and intend publishing them by subscription if a sufficient number of subscribers should come forward to justify the expense. Mr. Noel Humphreys, F.S.S., of the Registrar-General's Department, has been entrusted with the selection and editorship.

THE death of M. Bouisson has been recently announced. He was born in 1813, and finished his medical studies in 1836. He was appointed Professor of Physiology in Strasburg in 1837; of External Pathology in Montpellier in 1840; and of Clinical Surgery in 1851. In 1859 he was elected to the Chair of Operative Medicine, which he held until his death.

BY the death of Sir Erasmus Wilson, the Royal College of Surgeons, as residuary legatee, will, says *The Times*, receive a sum of something like £180,000, whilst the funds of the Royal Medical Benevolent College, the Medical Benevolent Fund, and the Sea-bathing Infirmary, Margate, will benefit to the extent of £5000 each.

THE gentlemen with whom Drs. Klein and Heneage Gibbes will co-operate in their researches into cholera are Dr. D. D. Cunningham, Professor of Physiology at the Calcutta Medical College, and Surgeon-General J. M. Cuningham, Sanitary Commissioner with the Government of India.

TO avoid inconvenience and delay which might be experienced by Poor-law medical officers, we are asked to state that Dr. Rogers, President of the Poor-law Medical Officers' Association, has removed from Soho-square to 31, Montague-place, W.C.

WE remind our readers that the Bradshawe Lecture will be delivered by Dr. G. H. Philipson, of Newcastle-on-Tyne, on Monday, the 18th inst., at 4 oclock, at the Royal College of Physicians.

THE Canadian medical journals announce the death of Dr. J. E. Landry, for more than a quarter of a century Professor of Surgery in Laval University, Quebec.

DEPUTY SURGEON-GENERAL TRIMNELL, late of the Madras Army, fell dead on the beach at Jersey on the morning of the 9th inst., as he was about to enter the sea to bathe. He had only recently arrived in the island to attend the funeral of a relative.

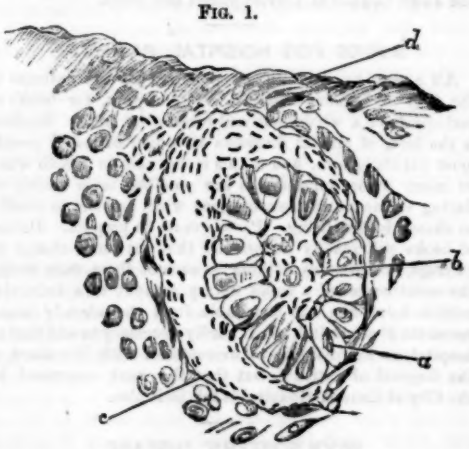
THE meeting of the Canadian Medical Association will be held this year at Montreal on the 25th, 26th, and 27th inst.

DR. KOCH ON THE CHOLERA.[1]

(Continued from p. 250.)

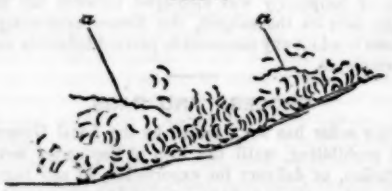
THE conference upon Cholera at the Imperial Board of Health in Berlin, on the close of Dr. Koch's address, which we reproduce in abstract below, adjourned till July 29th, when it was occupied with several questions arising out of the discovery of Dr. Koch, upon which he made further observations. We hope later to give an outline of this meeting, which is reported verbatim in a supplementary issue of the *Berliner Klinische Wochenschrift*, Aug. 11th. Before giving the continuation of Dr. Koch's address we may draw attention to the subjoined figures, selected from a series of illustrations which have been published in the Berlin journals. They illustrate points in the morphology and growth of the bacilli detailed last week. Fig. 1 is a

FIG. 1.



preparation from the intestine of a cholera patient, showing a Lieberkühn's gland, (*a*) in transverse section; within the gland (*b*), and between its epithelium and basement membrane (*c*), are seen numerous comma bacilli. At *d* is the surface of the mucous membrane denuded of epithelium. Fig. 2 is a cover-glass preparation from the margin of a drop

FIG. 2.



of meat infusion with pure cultivation of common bacilli. At *a* are seen long condensed filaments developed from the

[1] For the full text of Dr. Koch's address, see Berliner Klinische Wochenschrift, Aug. 4th and 11th, and Deutsche Medicinische Wochenschrift, Aug. 7th, 1884.

bacilli. Both figures are from preparations magnified 600 diameters. Dr. Koch's address continues as follows:—

Being thus convinced as to the distinctive characters of the common bacillus, the next thing was to determine the relation in which it stands to the cholera process, and whether it ever occurred in non-choleraic cases. In the ten examinations made in Egypt this point was only tested microscopically, no cultivations having then been made. In India the intestines were examined in forty-two cases, both microscopically and by cultivations, and in not one was the bacillus absent; in very acute cases it was found almost unmixed. Choleraic dejecta from thirty-two cases yielded similar results, but in only two out of many observations on vomited matter were bacilli found. It was probable that in these two cases the vomit contained fæcal matter. Bacilli were also found in specimens from eight cases sent by Drs. Kartulis and Schiess-Bey from Alexandria, and in two cases examined at Toulon in conjunction with Drs. Strauss and Roux, and in the choleraic dejecta of two other cases. One of these Toulon cases was that of a sailor attacked with cholera when convalescing from malarial fever; he died four hours after the seizure, and the autopsy was made half an hour after death, it being always an object to make such an examination as soon as possible. In this, as in other acute cases, the intestines contained almost a pure growth of the comma bacillus. The other Toulon case was similar; but in neither was the microbe found by Strauss in Egypt detected in the blood. Thus the comma bacillus has now been found in nearly one hundred cases of cholera, occurring in a constant relation to the cholera process, being most abundant in the lower end of the ileum, where the changes are most intense, and being most pure in the acute uncomplicated cases. On these grounds the comma bacillus may be considered as specific to cholera. Many observations were made in other diseases, and in subjects who had recently passed through attacks of cholera, without finding these bacilli in the dejecta or in the bowels. These observations included cases of dysentery, typhoid fever, bilious typhoid, and infantile diarrhœa; the secretions of the mouth, which are so rich in bacterial life; the intestines in arsenical poisoning; but, although bacteria of all kinds were met with, the comma bacillus was conspicuous by its absence. Similar negative results followed examination of the drain-water of Calcutta, and the impure tank-water in the villages on the banks of the Hooghly. Once only in the water flooding the region of the salt-water lake east of Calcutta was a bacterium found at first sight resembling the cholera bacillus, but on further scrutiny it proved to be thicker, and not to have the power of liquefying gelatin. In his own experience and that of other bacterologists a similar form to the comma bacillus was unknown. Three different views as to its relation to the cholera process are tenable. (1) That the disease favours the growth of these bacilli by affording them a suitable soil. If so, it would mean that the bacillus in question is most widely diffused, since it has been found in such different regions as Egypt, India, and France; whereas the contrary is the case, for the bacilli do not occur in other diseases, nor in the healthy, nor apart from human beings in localities most favourable to bacterial life. They only appear with the cholera. (2) It might be said that cholera produces conditions leading to a change in form and properties of the numerous intestinal bacteria—a pure hypothesis; the only instance of such a conversion refers to a change of physiological and pathogenic action, and not of form. Anthrax bacilli under certain conditions lose their pathogenic power, but undergo no change in shape; and that is an instance of a loss of pathogenic properties, whilst there is no analogy to support the view of the harmless intestinal bacteria becoming the deadly cholera bacilli. The more bacterial morphology is studied, the more certain is it that bacteria are constant in their form; moreover, the comma bacillus retains its special characters unchanged through many generations of culture. (3) Lastly, there is the view that the cholera process and the comma bacilli are intimately related, and there is no other conceivable relation but that the bacilli precede the disease and excite it. "For my own part," said Dr. Koch, "the matter is proved that the comma bacilli are the cause of cholera."

If this be so, experimental confirmation of the fact might be expected; and, were authors to be trusted, there should be no difficulty in this, since it has been stated that cholera occurs in cattle, dogs, fowls, elephants, cats, and other animals. But there is no evidence of such animals being spontaneously attacked with the disease during cholera prevalence; and direct experiments have either proved negative, or, if positive, have been inconclusive or been contradicted by others. The experiments of Thiersch on white mice, to which so much importance has been attached, have been repeated by Koch with recent and with decomposing choleraic material, the mice remaining unaffected. Experiments were also made upon monkeys, cats, fowls, dogs, and various other animals, but nothing like a cholera process was observed; and a similar result followed experiments with the comma bacillus in all stages of its development. Animals were fed with large quantities of the comma bacillus, with the result that the bacilli were found to be destroyed in the stomach, none appearing in the intestinal canal. It is not so with other bacteria—e.g., a red micrococcus found in Calcutta. Dr. Barclay fed mice with this micrococcus, and obtained cultures of it from the intestinal contents. The bacillus was injected directly into the small intestine and into the large bowel of monkeys, but without result; nor was any better success obtained by such measures employed after irritants had been introduced into the intestine. The only experiment which at first seemed to promise results was when pure cultures were injected into the blood of the rabbit or into the abdominal cavity of the mouse. The rabbits became very ill after the injection, but recovered; the mice died in from twenty-four to forty-eight hours, and the comma bacillus was found in the blood. It would seem as if, unlike other experiments on infective disease, very large quantities of the virus had to be employed; but to assure himself of the capability of infecting animals with cholera, Koch made special inquiry as to whether animals in India ever had the disease. He learnt that in the densely-populated province of Bengal, where many kinds of domestic animals are to be found under conditions favourable for infection, cholera was unknown among them. They appear to enjoy an immunity, and are incapable of being experimentally infected—a fact which is not fatal to the view that the comma bacillus is pathogenic; for, apart from experimentation, no other explanation of its connexion with cholera is possible than the causal one. Leprosy is not communicable to animals, and yet the lepra-bacillus must now be regarded as the cause of the disease. It is probably the same with typhoid fever, which is not communicable to animals. It is enough to ascertain the constant occurrence of a special kind of bacterium in a disease, and its absence in other diseases, its occurrence corresponding with the pathological lesions and the course of the disease. And there are some animal diseases not transmissible to man—e.g., rinderpest and pleuro-pneumonia. Parasites have their special hosts; many kinds of animals have their own tapeworm, which cannot develop in any other. Again, there is a whole group of diseases, especially the exanthemata, conceivably dependent on micro-parasites; but no one has ever yet shown that a disease can produce a specific organism. In cholera we have instances amounting to actual experimental infection of man—e.g., the infection of those who are engaged in washing linen soiled by choleraic dejecta. Such linen contains the bacilli often in a pure form, and if infection occur through this medium, it must be by means of the comma bacilli, the only micro-organism present. The hands may be soiled and the bacilli introduced into the mouth by direct contact or through the food, or drops of the washing water may come in contact with the lips, and thus in some way the human being is fed with a small quantity of a pure culture of comma bacilli. Another instance was found by Koch in the case of a tank of which the water was used for drinking and other purposes by many people among whom cholera was raging. He found the comma bacilli in this tank, and learned that the linen of the patients was washed in it. Around the tank were some thirty or forty huts, inhabited by 200 or 300 people; of these seventeen died, the number taken ill not being ascertained. The tank also received the refuse from the dwellings. The Hindoos bathe in the tank, wash their utensils in it, and deposit excreta on its shore; and if a hut has a latrine, its outflow is into the tank. Now, it was found that after a time the bacilli became less abundant in this water, and coincidentally the cholera declined; whereas, had the epidemic been the cause of their presence, and not the result, the number of bacilli should have increased in it. The whole etiology of cholera suggests the view taken as regards the comma bacilli. They multiply rapidly, soon reach their term, and are supplanted by other bacteria. So in the intestine they multiply, set up irritation and diarrhœa, and all the typical symptoms of

the choleraic seizure. Under normal conditions—in animals at least—the bacilli are destroyed in the stomach, and this harmonises with the important part played by predisposition, and the liability of those to be attacked who are suffering from gastric or intestinal catarrh, or who have overladen the stomach with undigested food, conditions which would facilitate the passage of the bacilli unchanged into the intestine. But the bacillus is limited to the intestine; it is not found in the mesenteric glands or in the blood. How, then, can it destroy life? Probably from the production of a poisonous substance, such as is produced by bacteria in putrefaction. In a gelatin culture of the comma bacilli with which blood-corpuscles were mingled, the corpuscles became destroyed as the colony grew, and it is probable that the bacilli exert a like destructive influence on other cells. That some poison is produced gets confirmation from the experiments of Dr. Richards of Goalundo, who fed pigs with choleraic material, death ensuing from convulsions in from fifteen minutes to two and a half hours. This must have been due to "intoxication," and not, as Dr. Richards states, to choleraic infection, for another pig, fed on the intestinal contents of one of those so killed, remained healthy. If it had been choleraic virus, it should have been transmissible. These experiments prove that in cholera the dejecta contain certain substances poisonous to swine, whereas dogs, mice, and other animals are unaffected by it. Assuming that the bacilli produce a specific poison, the phenomena of cholera may be thus explained. The poison acts locally in destroying the mucous membrane, and, being absorbed, it acts generally, and especially paralyses the circulatory organs. All the symptomatology of cholera, usually considered as due to the loss of water and thickening of the blood, is explicable on this view. Death may occur in this stage of cholera-poisoning when but few local changes are found, and the intestinal contents exhibit a pure culture of bacilli. If this stage be passed through, there occur necrotic changes—hæmorrhages and putrefaction—with symptoms due to the absorption of putrefactive products, usually described as cholera-typhoid. And there is abundant evidence of the cholera virus occurring in the dejecta, and rarely in the vomit. For the further dissemination of the disease it is necessary that the dejecta should be retained in the moist state, for drying destroys their potency; and this fact is borne out by the spread of the disease through the water-supply, or more directly by soiled hands, or even conveyance through insects, or blow-flies to food. Drains may be infected, and through them the water-supply. As the virus cannot be retained in the dry state, aerial infection seems impossible; nor has cholera ever been conveyed by merchandise or by letters, even if these are not disinfected and fumigated. Cholera can only be spread by human intercourse—a fact sometimes wanting in proof because it is overlooked, for the mildest case may be as infective as the most severe. The diagnosis of such mild cases by the detection of the comma bacillus becomes thus of much importance.

That the virus can be reproduced and multiplied outside the body is apparent, since the bacillus can be cultivated artificially, and its growth is not affected by comparatively low temperatures. Probably it does not grow in streams and rivers, where, owing to the current, a sufficient concentration of nutrient substance does not occur; but in stagnant water and at the mouths of drains &c.; vegetable and animal refuse may accumulate and afford the necessary nutriment. Thus is explained the propagation of cholera by the subsoil water, and the increase of epidemics with the sinking of its level, which lessens the flow and diminishes the amount of surface water. Admitting the dependence of cholera upon this micro-organism, it is impossible to conceive the disease having an autochthonous origin in any particular place; for a bacillus must obey the laws of vegetable life, and have an antecedent; and since the comma bacillus does not belong to the widely diffused micro-organisms, it must have a limited habitat. Therefore the occurrence of cholera on the delta of the Nile does not depend on its resemblance to the delta of the Ganges; but the disease must have been imported there as it is into Europe. It was once thought that an outbreak in Poland had a local origin until it was discovered to have been introduced from Russia. Again, about ten years ago, there was a sudden outbreak at Hamar (Syria), thought to be an instance of local origin, but erroneously, as shown by a statement of Lortet, who told Koch, when at Lyons, that the epidemic had been introduced into Hamar, where he was at the time, by Turkish soldiers from Djeddah. Indubitable instances of local epidemics arising outside India are not known, and everything confirms the view gained by experience that the cholera is due to a specific organism having its home in India. It used to be thought that the disease had started from Ceylon, Madras, or Bombay, but there is now general concurrence in regarding Bengal, the delta of the Ganges, as the original source. This is the only region where the disease never varies from year to year, for although some other regions, as Bombay, are never free from it, yet it is highly probable that this is due to its continued re-introduction. The upper region of the Ganges delta is thickly populated; the lower district, Sondarban, covering an area of 7500 English square miles, is uninhabited, and here the Ganges and Bramahpootra break up into a network of watercourses. The district abounds in luxuriant vegetation and in animal life, and is the seat of inundations and the home of pernicious fevers. Here it is probable, where the vast amount of decomposing vegetable and animal life affords a suitable soil, that the cholera bacillus flourishes. All great epidemics begin with an increase of cholera in South Bengal. The inhabitants of Lower Bengal dwell in huts raised on mounds to protect them against inundation, the excavations thus formed making the so-called "tanks," which are very numerous in the district of Calcutta and its vicinity. Since 1870, when new drainage works and water-supply were introduced, the mortality from cholera in Calcutta has become much reduced; but the retention of many of these tanks and the nature of the native dwellings still account for the spread of the disease. A remarkable instance of the disappearance of cholera under improved water-supply is afforded by Fort William, which used to have many cases annually. Other Indian towns show the same good result of improved water-supply—e.g., Madras, Bombay, and Pondichery, where some years ago the formation of artesian wells banished cholera; and although cases reappeared there last spring, Dr. Furnell of Madras ascertained that the cases were limited to the part of the town not yet supplied with these wells. Although contamination of drinking water may be the chief mode of spread, this is not the only way, and each place has its own conditions, which have to be dealt with. The diffusion of cholera in India depends on human intercourse, especially on pilgrimages, which are carried on to an inconceivable extent—e.g., hundreds of thousands flock yearly to Hurdivar and Puri, remain there many weeks herded together, bathing in the tanks that supply them also with drinking-water. Over the borders of India the cholera is carried into Persia, and in the old caravan days thence to the south of Europe; but the route now is by the Red Sea and Suez Canal. Every year the danger to Europe by this route increases, for Bombay, which is seldom free from cholera, is but eleven days distant from Egypt, sixteen from Italy, and eighteen or twenty from France. It is also clear that the greatest danger lies in ships carrying large numbers of people, as troops, pilgrims, coolies, and emigrants, and not the merchant vessels with small crews, for in the former the outbreak of an epidemic would be likely to last till Europe was reached. In the reports of the Sanitary Commissioner of India, 1881, it is stated that out of 222 coolie ships, carrying from 300 to 600, which had left India for American colonies in ten years, thirty-three had cholera on board, and in sixteen the epidemic lasted more than sixteen days. Why outbreaks of cholera outside India die out is probably due to different factors. One is that an attack of cholera confers immunity at least during the period of one epidemic, and whole districts may enjoy a similar immunity for a time; cholera having been in the place one year, passes it by in the next. Another is that the bacilli do not pass into the "resting state." And a third is the check given to their development by temperatures below 17° C.

In conclusion, Dr. Koch adverted to the subject of treatment, and reminded those who say that such discoveries do not enable us to cure the disease better than formerly, that a rational treatment of most diseases, and especially of infectious diseases, cannot be adopted until their cause and nature are known. But even yet the discovery of the cholera bacillus is important, as furnishing an aid in diagnosis which would facilitate the detection of the first case occurring in a district, and the adoption of measures to prevent its spread. Knowing also the nature and properties of the bacillus, and especially the readiness with which it is killed by drying, the right direction of prophylaxis is assured and the lavish expenditure of disinfectants checked, so that there will not be a repetition of what happened in the last epidemic, when millions of gallons were poured into the gutters and sewers

without the slightest need. Even therapeutically the knowledge of the comma bacillus may be of value. Diagnosis will be possible in mild cases and in the early stages of the disease, when treatment is of most avail.

THE INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.

THE Congress at Copenhagen, which was formally opened on the 10th inst. at the Industrial Exhibition, was preceded on the evening of the 9th by a reception and conversazione in the Tivoli Hall, which was attended by about 1200 members. There were present at the opening the King and Queen of Denmark, the King and Queen of Greece, and the whole of the Royal Family, the Corps Diplomatique, the President of the Rigsdag, the representatives of science and of the University, and the members of the Congress. The Danish professor, Dr. Panum, delivered an address welcoming the foreign representatives to Copenhagen, to which Sir James Paget, Professor Virchow, and Dr. Pasteur replied. Professor Panum was elected president; and Professor Axel Key (Stockholm), Dr. Dahl (Christiania), and Dr. Hjelt (Helsingfors) were nominated Scandinavian vice-presidents. Sir James Paget, Sir William Gull, Sir William MacCormac, Dr. Henry Acland, Sir James Risdon Bennett, Professor Lister, Sir Spencer Wells, Dr. Erichsen, Dr. Watson, and Dr. Marshall representing England, were made honorary presidents.

On the 12th inst. Dr. Billings of Washington laid before the Congress the following invitation, bearing several signatures:—"On behalf of the medical profession of the United States, we, the undersigned members of a committee appointed for that purpose by the American Medical Association, have the honour to offer to the International Medical Congress an invitation to hold its next meeting in the city of Washington in September, 1887." A paper was read by Professor Crudeli, of Rome, on the Cause of Malaria, and the means of making the countries where it prevails more healthy.

The Congress includes 350 Danes, 100 Swedes, 100 Norwegians, and 800 representatives of other nations, figures which show that the attendance of foreign medical men is larger than was the case at the London Congress.

STRAY NOTES ON THE CONGRESS.

(*By an Occasional Correspondent.*)

Leaving my home in the Midlands by the four o'clock train last Thursday afternoon, I drove straight from Euston to Ludgate-circus, where a German clerk at Cook's counter noted my projected route, and told me my tickets would be ready if I returned after I had dined. This I did, all the more pleasantly in that good luck had begun to smile on me in a chance meeting with a capital travelling companion, Professor Berry Haycraft, also on the way to the Danish capital. Dinner over, tickets paid for, and luggage registered, we left Ludgate-hill station for Queenboro' punctually at 8.25. In due time, on board one of the fine steamers on this route, I, as a wretched sailor, fondly looked on the smooth water, without a ripple in the lovely moonlight night. So bright was the moon that the electric light at the masthead was let out as soon as the engines were set going. The vessel was crowded, but doctors were conspicuously few. No time was lost at Flushing, and on we sped at a very fair pace for a continental train. No Great Western or London and North Western runs beyond the Channel. A long and very hot dusty day through a flat country, with a forward and seemingly good harvest, brought us at 9 P.M. on Friday to Hamburg. Oh! what a scrimmage for our luggage! what banging about of the boxes and swearing of porters! It came to an end at last, and, after a short carriage-drive through the beautiful city, we found ourselves comfortably seated in the train for Altona and Kiel. At one of the changes Sir James Paget's ever kindly smile, word, and hand greeted us, and it was then no longer doubtful that, even if our countrymen at the Congress were not unanimous, old England was sure to walk to the fore. At Kiel were three beautiful and most comfortably-appointed Danish steamers ready to convey the Congress members to Korsör. The sea trip, about six hours, was delightful; the water as still as a mill-pond; and after a comfortable supper in the saloon we all enjoyed sleep in spacious and well appointed cabins. From Korsör, two and a half hours' rail brought us to the capital, in a few minutes over thirty-eight hours from London. I was much struck with the fertility and good farming of Denmark, and the generally prosperous look of the people. As through Holland and North Germany the day before, windmills were plentiful, reminding one of old England in the coaching days, and of France when the diligences of the Messagéries Impériale and of Lafitte and Caillard traversed the country. The cottages hereabout are mostly thatched, and the pigs and sheep well bred and fed. The corn is for the most part cut and carrying is forward. At the Copenhagen station was Sir Spencer Wells, genial as ever, moving off with his children and a load of luggage. On our right was a room with a notice on the door, "Medical Congress Bureau." Within it were colleagues, senior and junior, busy receiving us strangers with the most cordial affability and the most enviable polyglot facility. What capital English scholars these Danes are, alike in accent and idiom! Just before leaving home I had received a card of invitation to Kongensgarde 68. I had only just entered the reception bureau when my host made himself known, addressed me in excellent English, called forward his man-servant, who also speaks English, and on we drove to the most cheery and comfortable of homes. With all deference to Roman and Norman conquests, to Dutch William and the Huguenots, who certainly have been useful blood-crosses, I say that English and Danes are more alike than any other two nations. At any rate I felt so as my host showed me into my dressing and bath rooms. Oh! for that dip, after the hot, dusty journey! And a word, too, for the huge Turkish towels. Who does not remember the French washhand-basins with good big saucers, and the towels like pocket-handkerchiefs? They certainly do not do *these* things better in France.

As two o'clock was the time appointed for taking out tickets, &c., at the University, I devoted an hour, after a good breakfast, to visiting the Thorwaldsen Museum, which is a repository for the works of art bequeathed by Thorwaldsen to his native town, and is also his mausoleum, as it contains his tomb in the centre of a vast courtyard, round which are the galleries and rooms containing his works. Never did I see such a monument to the genius and energy and long-life devotedness of one man. At the appointed hour everything was ready at the University. With a lively remembrance of the great London Congress in 1881, I did not see how the great MacCormac could have a successor; but really, I think, Sir William has a most worthy one in Professor Lange, the secretary-general of this Congress. He has quite an army of willing and able juniors to assist him; but amongst these is a senior who deserves special mention, because not a member of our profession. He was working hard and most usefully in the reception-room. Capt. Richard Carstensen, of the Danish engineers, would, I think, astonish any linguist by his beautiful English. Everybody was at ease—not a hitch; tickets, programmes, maps, all in hand; and after a stroll and dinner, to which invitations were most hospitably plentiful, we made our way to the Tivoli Gardens' beautiful pleasure grounds, whose central hall was specially reserved for Friday evening as a reception- and lounging room for the members of the Congress. A cool breeze, sweet music, iced drinks, cunningly concocted light punch, and a Babel of tongues greeted one. I was glad to see Professor Esmarch looking very well and vigorous; and presently my fears that only English veterans would look in were disappointed, for I caught sight of two worthy representatives of young English medicine in Drs. Mahomed and Isambard Owen. After such a day and forty-four hours on the road, I was ready for bed.

The Sunday was not to be all rest, for that was the day appointed for opening the Congress. Still, time was allowed for attendance at the English church, or rather the service of the church, in a large room on the right of the yard in the Stormgade 21. Thanks to the efforts of H.R.H. the Prince of Wales, money enough has been collected to build an English church here, and it is hoped that the foundation-stone may be laid next spring by H.R.H. the Princess of Wales, who, if possible, is almost more popular here than she is in England. Lady Paget, Miss Paget, and one of her brothers, as also Sir Henry Acland, attended the service,

which was performed by the Rev. C. A. Moore, M.A., chaplain to H.B.M.'s Legation, the sermon being preached by the Right Rev. P. D. Titcomb, D.D., Bishop-Superintendent for the English chaplaincies in Northern and Southern Europe.

The word having been passed that visitors at the opening ceremony were to be in full dress, we had scarcely time to don our war paint, and be at the Palais de l'Industrie in the Vesterbrogade at 1 o'clock. The hall is beautifully proportioned and decorated, and upwards of 1200 visitors had assembled, when the Royal Family drove up in eight carriages. The scarlet liveries and the outriders made a fine pageant in the glaring sun; and the President, Professor Panum, might well feel proud when he opened the Congress from the tribune, addressing the Kings and Queens of Denmark and Greece, who were seated in gilded armchairs serene and stately before him. After the President, Sir James Paget spoke, as President of the preceding Congress; and I do no injustice to his compeers when I say he held his own as the first orator in the medical profession. Virchow followed; and then Pasteur, who received an ovation without parallel. His son is one of the secretaries at the French Embassy here; and when also I mention that President Panum addressed the assembly in French, that lively bird *le coq Gaulois* may be excused if he crowed rather loud for a day or two. The speeches over, a short interval was allowed before commencing any business (Sunday, remember). The Royal Family graciously utilised the time by chatting with the inner circle of visitors. The King of Denmark very pointedly picked out Virchow for several minutes' conversation, then chatted very jovially with Sir William Mac Cormac, passing on to Volkmann with rather more stateliness. His Majesty seemed to have bethought himself that the hilarious *bonhommie* of a prince of good fellows might almost be too contagious on such a grand occasion. Pasteur certainly seemed to have the monopoly of the conversation and charms of the Queen of Greece; but for an intimate *tête-à-tête*, which seemed as if it were to have no ending, commend me to the chat of the Queen of Denmark and Sir James Paget. Her Majesty seemed as if she would not part with the distinguished baronet. The clock hand moves round even at Copenhagen, and as I have to dine with the President of the Congress at six o'clock, I must reserve for another post a few more stray notes, leaving you to determine if they are likely to interest your readers.

Copenhagen, August 10th, 1884.

THE CHOLERA EPIDEMIC.

AT Toulon the cholera epidemic shows further signs of subsidence, for not only has the number of deaths been reduced to from one to two or three a day, but the fresh attacks which occur are of a much less severe character than they were. Much the same may be said as regards Marseilles, although there the mortality remains higher than at Toulon, and the disease still exhibits a tendency to recur in outbursts. Extension also continues to take place to neighbouring localities to which the inhabitants of infected places have fled, some of the more striking outbreaks having occurred at Gigean, in the Herault, and in villages in the Basses Alpes. The previous extensions to Arles and to Aix have, however, not been maintained to any serious extent, and this circumstance tends to show that the poison is less virulent than it has been, and gives hope of a general abatement of the disease in the South of France. Perhaps the most important event of the past week has been the obvious spread of the epidemic into Northern Italy, several fresh places in the provinces of Turin, Parma, and of Genoa being now admittedly infected, and this notwithstanding the quarantine measures which have been so stringently enforced. So far, however, there has been no tendency to any rapid diffusion of the infection, and in view of the sanitary precautions which are being taken, it is more than probable that no real epidemic will be experienced in Italy this autumn. Except as regards infantile diarrhœa, which is still prevalent, the sanitary condition of Paris remains satisfactory. The returns for the week ending the 9th inst. show no case of cholera, and the druggists in some quarters testify to an unusual absence of bowel complaints, owing to the general abstinence from unripe or indigestible fruits. Paris is, nevertheless, undergoing a process of depletion; the departures of visitors being 24,873, against 21,544 arrivals. Liverpool has again had to adopt stringent measures of inspection, isolation, and disinfection, owing to the arrival of a vessel which had taken on board some seamen from Marseilles, and which had in consequence suffered from cholera. No active cases of the disease have been imported, but patients suffering from debility and other symptoms following on the secondary fever have had to be placed under careful surveillance and treatment. The measures which have been adopted by Dr. Stopford Taylor and the Sanitary Committee of the Port Authority have amply sufficed to deal with the emergency. Elsewhere occasional rumours of cholera have occurred in this country, but none of them have been of a character to cause anxiety as regards extension, and it cannot be too widely understood that a fatal attack of choleraic diarrhœa at this hot season of the year may be, and often is, accompanied by symptoms which it is difficult to distinguish from those of true cholera; but still the disease has not the power of diffusion which attaches to the imported Asiatic affection.

THE REPORT OF THE FRENCH COMMISSION.

At the meeting of the Paris Academy of Medicine on Aug. 5th, M. Strauss presented on behalf of M. Roux and himself a report upon their investigations on the cholera at Toulon, researches which were practically a continuation of those carried on by them in Egypt in conjunction with the late M. Thuillier and M. Nocard. They assert that they invariably found the same lesions as those observed in Egypt, where search was made for a special microbe in the intestine by means of methyl-blue staining of sections of specimens preserved in alcohol. Various kinds of micro-organisms were found in the mucous membrane, ducts of the tubular glands, the villi, and in places in the submucous tissue, the majority being bacilli of varied shape and size. At Toulon MM. Strauss and Roux again sought for a specific organism like that found by Koch, and their observations confirmed what they had met with in Egypt. Micro-organisms were found in many cases, especially those where the disease was prolonged, but in the most rapid cases these organisms are much less numerous, and in the very acute cases it was impossible to detect them, even by the method adopted by Koch, whose statements on the point are referred to. The French observers go on to state that the characteristic choleraic stools are found to contain many kinds of micro-organisms, and in many cases but few that are comma-shaped. The intestinal contents obtained post mortem exhibit the same variety in bacteria, without any predominance of comma bacilli. In one extremely rapid case examined in the presence of Dr. Koch, the small intestine was coated with a layer of mucus which contained a pure culture of comma bacilli. These facts lead MM. Strauss and Roux to assign an important part in cholera to the comma-shaped organism; yet there are cases where the variety of intestinal organisms is so great that no special form preponderates. In such cases Koch resorts to cultivation to detect the comma bacillus, and the report goes on to describe the method of culture, the development of the bacillus, and the conditions of its existence. The reporters believe that until cholera can be transmitted by the administration of a pure culture of this organism, its specific character will be incapable of proof. Koch relies largely on the observation that the comma bacillus is not found in the healthy intestine or in any disease but cholera, so that if it could once be found apart from cholera, doubt would be thrown on its specific character. Dr. Maddore (of Tendres) photographed a comma-shaped microbe met with in a reservoir; M. Malassez showed the commission some comma-shaped bacilli in dysenteric stools, and M. Strauss has detected similar organisms in leucorrhœal discharge, and in the uterine secretion of a case of epithelioma of the cervix. The Commissioners further point out that if the comma bacillus be the cause of cholera, its limitation to the intestine and, in the more acute cases, its non-invasion of the mucous membrane, must necessitate the notion that it is capable of secreting a soluble ferment or poison, the absorption of which produces the symptoms of cholera. Attempts must therefore be made to extract from pure cultures of the bacillus a soluble poison having this action upon animals. It would also be of interest to ascertain whether in well-marked cases of cholera nostras the comma microbe is

present. The particulate bodies resembling organisms first detected in the blood by the Commission in Egypt have again been met with in the Toulon cases, and are believed to be due to a special change in hæmoglobin.

FOREIGN QUARANTINE REGULATIONS.

NOTIFICATIONS to the following effect have been given in the *London Gazette* of August 8th and 12th :—

A service of medical superintendence has been organised at several of the French railway stations to oblige travellers who may be found to be ill to break their journey.

All ships arriving at St. Petersburg from suspected ports are to be subjected to twenty-four hours' quarantine, even though they be provided with a clean bill of health.

At Algiers ten days' quarantine is imposed on all vessels arriving from Marseilles and Toulon, and five days' quarantine on vessels from other infected ports.

Eleven days' quarantine is imposed at Athens on vessels arriving from the Italian peninsula, and five days' observation on arrivals from French Atlantic ports.

Arrivals from Tunis at Austrian ports are subjected to a quarantine of observation of ten days if there has been no sickness during the voyage, and of twenty days if sickness has occurred.

At Madrid arrivals from Italian ports are placed on the same footing as those from French ports, and must consequently perform quarantine at a lazaret port of seven, ten, or fifteen days, according to circumstances.

THE HEALTH EXHIBITION.

THE SANITARY AND INSANITARY HOUSES.

THE whole object of an exhibition is to teach by the eye, which as a gateway of knowledge is allowed by all to be more effectual than the ear. The idea, therefore, of placing side by side two houses of the ordinary type, one showing the common sanitary defects, and the other showing how these common defects may be best avoided, and asking the British public to "look on this picture and on that," was, to say the least, a happy one. The idea has been well carried out by Messrs. Rogers Field, Ernest Turner, Corfield, and Douglas Galton; and the Executive Council of the Health Exhibition are to be congratulated on the completion of this important addition to their great show. The work has been some time on hand, as there arose sundry difficulties before an exhibit so full of detail could be completed. Now, however, that the work is done, all will agree that it has been worth waiting for, and it is to be hoped that in the ten weeks or so which will elapse before the close of the Exhibition it will be seen by a large number of the class of artisans upon whom we rely for the construction of our dwellings.

Visitors are conducted first through the insanitary house, where the lesson conveyed is "How not to do it." The dustbin is too big and inaccessible; there is a pipe drain under the basement cemented only at the top. The sinks and closets are without light and air; the apparatus used is of the common bad type; the soil pipes are unventilated; the pan-closets have no safes; bell-traps and D-traps abound; the drinking water is being contaminated by air charged with the products of the decomposition of excrement; the lavatory basin is a duct for sewer gas, as is also the waste-pipe and overflow-pipe of the bath. The water cistern is poked away under the roof, the damp is rising on the walls, the papers are arsenical, and the ventilation is very defective. This "shocking example" is not overdone. The defects shown come daily under the eye of medical men, and as we walked through this dwelling, visions of sore-throat, headache, malaise, typhoid, diarrhœa, and puerperal fever filled the mind.

Having made the circuit of the unhealthy house from basement to top storey, the visitor passes along a passage into the sanitary house, and he is at once confronted with properly ventilated gas-pipes, tube ventilators for the admission of fresh air, and at the top a light and airy cistern-room, in which the cisterns (for there are two, one for drinking water and the other for flushing water, &c.) are easily got at and cleaned. The cork flooring to the bath-room, the window latches, the deep bead at the bottom of some of the windows so that air may find its way into the house between the sashes, are all details sure to strike anyone with an eye for wholesomeness.

The waterclosets are against outside walls, the closets are properly fixed, the overflow pipes open into the air, there are separate waste-preventing cisterns for the waterclosets, and the soil-pipes are ventilated; all this has been accomplished easily, and in spite of the fact that the two houses are of almost identical area and pattern. Then, again, we find a bath of excellent pattern, incandescent electric lights, clean and beautiful sinks, parquet floors, ventilating stoves, an impermeable iron-pipe beneath the house, the waste-pipes ending over gulleys, and a proper disconnecting chamber to cut off the house from the street sewer. The front area is lined with white tiles, and the dustbin is replaced by a galvanised iron box. Finally, the visitor emerges through the front area much impressed by the contrast.

There were certainly many plumbers and artisans inspecting these houses on Tuesday, and we can only hope that every plumber in Great Britain may find an opportunity of so doing.

INTERNATIONAL HEALTH EXHIBITION LIBRARY.

The library which has lately been opened in connexion with the Exhibition numbers upwards of 8000 volumes, and contains valuable collections of census and cholera reports, reports of English and foreign sanitary commissions, of medical officers of health, and of vital statistics; also Transactions of Societies and journals relating to health; in the latter may be mentioned a complete series of volumes of THE LANCET from the commencement to the current year (1823-1883), 121 volumes. The medical works on health are very complete, and such subjects as food, dress, dwelling-houses, ambulances, &c., are numerously represented. The collection of English and foreign guide-books, and medical and popular treatises relating to health resorts at home and abroad, are numerous. The Italian Government deserve special mention for their complete and valuable set of sanitary and educational reports. The Executive Council may be congratulated in having formed, under the direction of a subcommittee, such a valuable library, which, we trust, may be increased by the forthcoming Exhibitions. Mr. Carl A. Thimm, the librarian, is to be complimented on having arranged, classified, and catalogued the library in a remarkably short space of time. The catalogue, which is published, is printed in double columns, and consists of 138 octavo pages.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria in the Kingsclere Rural District, by Dr. BLAXALL.[1]—This outbreak, which affected five different localities in the Kingsclere rural district, exhibited in its early history the difficulty so often met with as to what constitutes the origin of this disease. "Mumps" had for some time past been very prevalent, but some of the school children who had been affected had also suffered from symptoms indicative of diphtheritic paralysis, such as regurgitation of fluids on drinking, altered voice, and impaired vision; throat affections in different forms had been prevalent, and amongst these a certain number had been scarlatinal in character. Following on this sequence of cases, diphtheria as such was first recognised at Ashford Hill in July, 1883, when a child was affected who was in attendance at a school in Ashford. But inquiry at the school disclosed the fact that there had previously been a number of absentees from school owing to "mumps and sore-throat"; and after their first attack others followed which evidently derived their infection from the same source, fifteen of the seventeen primary attacks being attendants at

[1] To be purchased of Knight and Co., 90, Fleet-street; Shaw and Sons, Fetter-lane; Hadden, Best, and Co., West Harding-street; and P. S. King and Son, King-street, Westminster.

the Ashford school. Other localised attacks took place at Headley Common and at East Woodhay, the attacks at the latter place being preceded by a number of cases of sore-throat in the school and neighbourhood. The true nature of these attacks may be gathered from the facts that in some of them the parents had noted that their children's throats were white inside, that in others the voice and vision were affected, and that the death certificate in one instance includes the obscure term "croup." In all, five different localities were affected, the number of cases was forty-seven, the different families attacked numbered twenty-four, and eleven deaths took place. As regards the origin of the affection, geological circumstances go for nothing. The localities in question lie mainly on the London clay and the Lower Bagshot beds, some infected dwellings standing at high elevations, others on the slopes of the hills, others again on a level with neighbouring streams. The ordinary village nuisances were by no means absent, but nothing could be pointed out capable of being regarded as a clear cause of diphtheria. Food supplies could with some confidence be excluded as a cause, and it was found impossible to detect any community of condition or circumstance peculiar to the homes or the home life of those who were affected which was not equally applicable to those who escaped. As regards Ashford Hill, either a child or one of the teachers who was temporarily absent owing to certain throat symptoms appears to have been the exciting cause of the disease which diffused itself among the school children; but how these first attacks originated is not made out. The subsequent spread of the disease was facilitated by intercommunication, especially amongst members of the same family, by attendance in the harvest fields, or at places of public amusement. The inquiry appears to have been worked out by Dr. Blaxall with a care that leaves nothing to be desired, and yet, as in so many other cases, no fresh light is thrown on the origin of the disease. The principal difficulty, here as elsewhere, seems to lie in the fact that early cases of throat affection which are not of such a nature as to excite suspicion are capable of diffusing themselves somewhat widely, until at last obvious diphtheria is being spread, and then the remedy comes too late. It will only be by a much more intelligent appreciation on the part of the public of the fact that apparently simple cases of sore-throat may lead to fatal outbreaks of disease that the remedy against diffusion can be hoped for. In the absence of strict measures of isolation for these cases, the major disease is often produced, and then no means of isolation are available for the comparatively large number of persons who have sickened.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Billericay (*Rural*).—This rural district had a death-rate of 21·0 per 1000 in 1883, and the excess beyond that which should obtain in such a district was to a notable degree due to zymotic disease. Thus diphtheria was somewhat widely diffused through the district, causing seventeen deaths; and this probably indicates a very large amount of throat affection, for, as Dr. Carter suggests, it is hardly probable that more than one case in fifteen terminated fatally. Dr. Carter is inclined to think that faulty sanitary conditions do not produce diphtheria any more than they lead to small-pox; but that, on the contrary, the disease is always due to infection, the poison invariably breeding true. There is much experience which is opposed to this view, and there are few districts so well administered that it becomes possible to exclude faulty sanitary circumstances as a cause. Once produced, we fully concur with Dr. Carter that diphtheria is intensely infectious by means of personal communication, and that at times certain geological and sanitary conditions favour its retention in a stage in which it is potent for harm.

Helmsley (*Rural*).—Scarlet fever, which caused forty-five deaths in this district, was the only infectious disease which became diffused in 1883, diphtheria and enteric fever being remarkable by their entire absence. Apparently no means of isolation have been provided by the sanitary authority. A remarkable outbreak of diarrhœa occurred at Hawnby, where it mainly attacked school children, and the details were communicated to Dr. Ballard in connexion with his general inquiry into the causes of that disease. Although the district is one where sanitary improvements are still needed, yet according to Dr. Bruce Low much has been done, and the death-rate for the year was only 14·6 per 1000 living, notwithstanding the epidemic of scarlet fever. On the whole he believes that at a minimum expenditure there has been a fair return of health to the district, and whilst he admits that there is ground for satisfaction, yet he impresses on his authority the need for further action and the danger of falling into a false sense of security.

Glanford Brigg (*Rural*).—This district has an estimated population of 29,041; the death-rate during 1883 was 19 per 1000, and the birth-rate 36 per 1000. The infantile death-rate is high, amounting as it does to 21·5 per 100 registered births in the villages where ironworks are carried out. In the rest of the district the rate is only 11, which is about the usual rate in normal agricultural villages. Scarlet fever was somewhat prevalent, causing 23 deaths and necessitating the closure of schools. Typhoid fever occurred in ten different localities, and notably at South Ferriby, where it was apparently caused by the use of contaminated drinking-water. Measures have now been taken to remedy this serious defect. An exceptional mortality is reported by Mr. Moxon as having occurred from puerperal fever, no fewer than twenty women having died shortly after childbirth. After a time some of the medical practitioners altogether abstained from midwifery practice, and then the disease ceased. During the three months preceding the issue of the report no fresh case had occurred. The account of sanitary work carried out shows that the conditions under which the people are living are steadily undergoing improvement.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

During the week ending the 9th inst. 5132 **births** and 3670 deaths were registered in twenty-eight of the largest English towns. The annual rate of mortality in these towns, which had been 24·9 and 23·3 per 1000 in the two preceding weeks, further declined last week to 21·9. During the first six weeks of the current quarter the death-rate in these towns averaged 22·6 per 1000, against 19·6 and 20·2 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 14·8 in Bristol, 15·7 in Brighton, and 16·7 in Bradford. The rates in the other towns ranged upwards to 27·3 in Halifax, 27·5 in Leicester, 29·0 in Preston, and 30·2 in Bolton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which in the two preceding weeks had been 1246 and 1035, further declined last week to 911; these included 585 from diarrhœa, 92 from measles, 75 from whooping-cough, 70 from scarlet fever, 45 from "fever" (principally enteric), 22 from diphtheria, and 22 from small-pox. These diseases caused the lowest death-rates in Huddersfield and Plymouth, and the highest in Liverpool, Bolton, and Salford. The highest death-rates from diarrhœa were recorded in Portsmouth, Bolton, Leicester, and Salford; from measles in Wolverhampton and Halifax; from whooping-cough in Halifax; and from scarlet fever in Cardiff, Sheffield, and Wolverhampton. The 22 deaths from diphtheria in the twenty-eight towns included 18 in London. Small-pox caused 16 deaths in London (exclusive of 3 metropolitan cases registered outside Registration London), 2 in Liverpool, 2 in Sunderland, 1 in Hull, and 1 in Cardiff. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the four preceding weeks from 1368 to 892, further fell to 810 on Saturday last; the cases admitted, however, which had fallen in the seven previous weeks from 354 to 66, rose to 110 last week. The Highgate Small-pox Hospital contained 45 patients on Saturday last, 6 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 159 and 198 in the two preceding weeks, declined last week to 187, and slightly exceeded the corrected average. The causes of 83, or 2·3 per cent., of the 3670 deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Nottingham, and in five other smaller towns. The largest proportions of uncertified deaths were recorded in Sunderland, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which in the two preceding weeks, had been 23·3 and 20·6 per 1000, was 20·7 in the week ending the 9th inst.; it was 1·2 below the mean rate during the same week in the

twenty-eight large English towns. The rates last week in the Scotch towns last week ranged from 11·8 and 15·7 in Perth and Greenock, to 23·2 in Paisley and 24·3 in Glasgow. The 500 deaths in the eight towns included 51 which were referred to diarrhœal diseases, 31 to whooping-cough, 14 to scarlet fever, 7 to diphtheria, 6 to measles, 5 to "fever," and not one to small-pox; in all, 114 deaths resulted from these principal zymotic diseases, against 85 and 95 in the two preceding weeks. These 114 deaths were equal to an annual rate of 4·7 per 1000, which was 0·7 below the average rate from the same diseases last week in the twenty-eight English towns. The fatal cases of diarrhœal diseases, which in the three previous weeks had declined from 57 to 40, rose again last week to 51, but very slightly exceeded the number in the corresponding week of last year; they included 23 in Glasgow, 13 in Dundee, and 6 in Paisley. The death-rate from diarrhœa in the Scotch towns last week did not exceed 2·1 per 1000, whereas it averaged 3·5 in the large English towns. The 31 deaths from whooping-cough showed a further increase upon those returned in recent weeks, and included 20 in Glasgow and 4 in Edinburgh. Of the 14 fatal cases of scarlet fever, 13 occurred in Glasgow, where 3 of the 7 deaths from diphtheria were also recorded. The 6 fatal cases of measles showed a decline of 10 from the high number in the previous weeks, while those of "fever" showed a slight increase upon recent weekly numbers. The deaths referred to acute diseases of the respiratory organs in the eight Scotch towns, which had been 89 and 66 in the two previous weeks, were last week 65, and exceeded by 11 the number returned in the corresponding week of last year. The causes of 72, or 14·4 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 19·3 and 23·0 per 1000 in the two preceding weeks, declined to 22·4 in the week ending the 9th inst. During the first six weeks of the current quarter the death-rate in the city averaged 21·7 per 1000, the rate during the same period being equal to 23·3 in London and 17·2 in Edinburgh. The 151 deaths last week in Dublin were within four of the number in the previous week, and included 23 which were referred to the principal zymotic diseases, against 16 and 22 in the two preceding weeks; of these, 8 resulted from diarrhœal diseases, 6 from scarlet fever, 6 from "fever" (typhus, enteric, or simple), 3 from whooping-cough, and not one either from small-pox, measles, or diphtheria. These 23 deaths were equal to an annual rate of 3·4 per 1000, the rate from the same diseases being 4·9 in London and 2·1 in Edinburgh. The fatal cases of diarrhœa showed a decline of 3 from the number in the previous week; the 6 deaths referred to scarlet fever showed a slight increase upon recent weekly numbers. The 6 fatal cases of "fever" corresponded with the number in the preceding week. Three inquest cases and 2 deaths from violence were registered in the city during last week; and 57 deaths occurred in public institutions. The deaths of infants showed a considerable decline, while those of elderly persons exceeded the numbers in recent weeks. The causes of 21, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

ADMIRALTY.—Fleet Surgeon Donald MacIver, M.D., has been placed on the retired list.

The following appointments have been made:—Staff-Surgeon W. H. Stewart, to the *Clyde*; Staff-Surgeon A. G. Dolmege, to the *St. Vincent*; Staff-Surgeon H. T. Cox, to the *Canada*; Staff-Surgeon H. E. F. Cross, to the *Cambridge*; Surgeon Jeremiah Sugrue, M.D., to the *Watchful*; Surgeon A. G. P. Gibbs, to Haslar Hospital; Surgeon D. S. Gunn, to the *Canada*.

ARTILLERY VOLUNTEERS.—3rd Lancashire: Surgeon Matthew J. Rae, M.D., resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the corps on his retirement.

ENGINEER VOLUNTEERS.—2nd Tower Hamlets (East London): William Ball, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—1st Hertfordshire: Surgeon George Elin, M.D., resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the corps on his retirement.—1st Shropshire: Surgeon Thomas Greville Thursfield, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement. Acting-Surgeon William Thursfield, M.D., to be Surgeon.

Correspondence.

"Audi alteram partem."

THE LONDON UNIVERSITY PRELIMINARY SCIENTIFIC EXAMINATION.

To the Editor of THE LANCET.

SIR,—In the interest of many deserving students, whose honest labour is being cruelly wasted, and whose prospects in life are being seriously injured, I ask you to publish the accompanying papers in physics recently set at the Preliminary Scientific Examination of the University of London.

INTERMEDIATE SCIENCE AND PRELIMINARY SCIENTIFIC (M.B.) PASS EXAMINATIONS, 1884.

Experimental Physics.

Examiners: Professor G. Carey Foster, B.A., F.R.S., and Professor A. W. Reinold, M.A., F.R.S.

Tuesday, July 22nd. Morning—10 to 1.

1. A railway train of 300 tons is running at 45 miles an hour: find its energy of motion in foot-tons. Also, if the engine while getting up the speed of the train does work on it at an average rate of 100 horse power, show how long it will take to get up the speed of 45 miles an hour. [Take g=32 (feet, seconds); 1 horse power=33,000 foot-pounds per minute.]

2. A cage weighing 240 pounds is lowered with uniform acceleration down the vertical shaft of a coalpit, the velocity changing from 100 to 200 feet per second while the cage descends 600 feet. Determine the force exerted by the cage on the rope by which it is lowered.

3. How can the amount of work done against external pressure during change of volume be expressed numerically? One grain of air is heated under constant pressure from 0° to 10°C: determine the work, either in *ergs* or in *centimetre-grams*, due to the expansion. [Coefficient of expansion of air $\frac{1}{273}$. Volume of 1 gram of air at 0°, under pressure of 1 million dynes per square centimetre=783·3 cubic centimetres. Or, 1 cubic centimetre air at 0° under pressure of 76 c.m. mercury =0·001293 gram; 1 cubic centimetre mercury at 0°=13·596 grams; g=981 (centim., seconds).]

4. Explain why the rise of temperature due to compression and the fall of temperature due to rarefaction in a sound-wave both tend to raise the velocity of propagation of the wave.

5. How does the pitch of the note sounded by an open organ-pipe depend on the length of the pipe and the velocity of sound in air? Show how the note is affected by changes of temperature.

6. Describe some method by which the expansion of water has been studied. If δ be the expansion of water between 4° and 0°C. and Δ its expansion between 4° and $t°$, show what is the density of water at $t°$ referred to water at 0°. 7. How does the boiling point of a liquid depend on the pressure to which it is exposed? Describe Regnault's method, founded on the variation of boiling-point referred to, of determining the maximum pressure of vapours at various temperatures. 8. Two air-thermoscopes, one with a clear glass bulb, the other with a bulb covered with gold-leaf, are placed (a) one after another at the principal focus of a convex lens presented to the sun; (b) at equal distances in front of a common fire. In both cases the thermoscopes are found to be unequally heated. How do they differ, and why?

Afternoon—3 to 6.

1. Describe the principle of measurement employed in the torsion-balance. A magnet suspended by a fine vertical wire hangs in the magnetic meridian when the wire is untwisted. If on turning the upper end of the wire half round the magnet is deflected through 30° from the meridian, show how much the upper end of the wire must be turned in order to deflect the magnet 45° or 60° respectively.

2. If a metal ball, hung by a dry silk thread, be made to touch the inside of an electrified metal jar and then carried to an electroscope, the electroscope is not affected; but if the electroscope is connected with the inside of the jar by a wire, it receives a charge. Account for the difference between the two results.

3. *A*, *B*, and *C* are three Leyden jars, equal in all respects. *A* is charged, made to share its charge with *B*, and afterwards to share the remainder with *C*, both *B* and *C* being previously without charge. The three jars are now separately discharged. Compare the quantity of heat resulting from each discharge with what would have been produced by the discharge of *A* before any sharing of its charge.

4. Ten galvanic cells, each of internal resistance 2 and electro-motive force 1·5, are connected (a) in a single series; (b) in two series of five each, the like ends of the two series being joined together. If the terminals are in each case connected by a wire of resistance 10, show what is the strength of the current in the wire in each case, and compare the rates of consumption of zinc.

5. Two wires whose electrical resistances are as 3 to 5 are connected (a) in series, or end to end; (b) abreast, or "in multiple arc"; and a current of the same total strength is sent through each combination. Compare the quantities of heat produced per second in each wire in the two cases.

6. When a thermo-electric pile is introduced into the circuit of a

battery, the strength of the current is reduced rather more than by the introduction of a simple wire of the same resistance as the pile. Account for this effect.

7. A gold fish globe of six inches' radius is filled with water. Determine the apparent position of a point inside the globe, 4 inches from its surface, when seen by an eye outside looking along a radius of the globe.

8. Trace the changes in the position and size of the virtual image formed by a concave lens when the object moves from an infinite distance up to the lens. Explain how the image is formed by the concave eye-piece of an opera-glass.

Besides being extraordinarily difficult and pedantically framed, they deal with departments of natural philosophy far removed from the requirements of future medical men. They might be fit for an advanced class of civil, mechanical, or electrical engineers, devoting all their time and energies to mathematical physics; for young men still under age, who have to get up zoology, botany, and chemistry simultaneously, they are simply disgraceful. It is, therefore, not surprising that, as Dr. Bristowe, himself a distinguished student of the University, has shown, of a hundred who begin this career only ten succeed in completing it. It is also unfortunately obvious that where such recondite and uncommon questions are asked, there must be, even with the greatest care, an advantage given unintentionally to pupils attending the classes of examiners who are themselves teachers.

I am, Sir, yours, &c.,

WILLIAM H. STONE,
Censor, Royal College of Physicians.

August 4th, 1884.

HEALING OF WOUNDS IN THE SOUDAN.

To the Editor of THE LANCET.

SIR,—I have had under my care at the Egyptian Military Hospital, Suakin, for fifty-seven days, three men whose right hands were amputated by order of Osman Digma forty-five days before they came under my charge. During these forty-five days they were kept prisoners in chains at Osman's camp at Tamanieb, their wounds being quite unattended to, they themselves having torn a piece off their scanty cloth to wrap round the stumps. When freed, they made their way direct to Suakin and appeared at the hospital for treatment.

As may be imagined, the dressing was in a rather filthy state, but I was surprised to find that active and healthy granulation was going on, with small discharge and no pain, the bones being quite covered by granulations, the stumps large, and healthy ulcers with small healing edges, which after a few days' dressing in hospital grew over the granulations with great vigour. At present the stumps are perfectly rounded, and with a very slight scar where the last of the dermis covered the granulations.

It may interest some of your readers to know how Osman performs his amputations. The right hand of the unfortunate "friendly" was grasped by one man, whilst another tied round the forearm a rope so tightly as to stop the circulation. This rope was dragged upon in one direction, the hand in the opposite. A third operator with one of the ordinary Soudanese curved knives made a circular incision round the wrist over the radio-carpal joint, and so between dragging and cutting the hand was separated from the arm. The method of preventing hæmorrhage was as follows. Before the cord on the arm was loosed, a pot of tallow was placed over a charcoal fire, the men operated on squatting in the usual Eastern fashion till the tallow boiled, then one by one their stumps were thrust into the boiling tallow and kept there till danger of hæmorrhage was supposed to be over. Afterwards they were kept in irons till the day before they appeared in Suakin.

I cite other two cases which have come under my care here.

1. An Abyssinian boy, sixteen years of age, who was in General Baker's battle of Teb, was retreating with the other Abyssinians engaged there, when he was struck by a spear over the superior border of and close to the right scapula, the spear penetrating in a downward direction, and the point making its exit below the clavicle at the junction of the middle and outer third. After receiving the wound the boy assisted in killing the man who struck him, and ran seven miles—i.e., to the harbour of Tokar; he was then shipped to Suakin. The spear measured from 1½ in. wide at its tip to 2 in. at its base, and from ¼ in. to ½ in. thick in its central rib. No important bloodvessels were injured, no nerve cords were much hurt, and not a bad symptom appeared in the wound, which was quite healed in six weeks. For two or three weeks afterwards he had slight pain in the course of the musculo-spiral nerve, which quite disappeared.

2. An Abyssinian was shot at the battle of Tamar, the ball passing through the upper part of his thigh close behind the femur, then through the scrotum without injuring the testicles or cords. He was walking about in hospital in the three weeks.

I believe all these cases are examples of the rapid and certain healing of wounds so often seen here in natives of the Soudan and Abyssinia. Many other cases have come under my notice. In no cases have I seen suppuration, except in those where no precautions have been taken to keep the wounds clean, and the Listerian antiseptic system is not carried out by me. Abstinence from alcoholic liquors and simple feeding might be said to explain the sure healing of the wounds of the Soudanese, but not of the Abyssinians, who drink whenever opportunity occurs, and eat as much butchers' meat as they can afford, and on special occasions without cooking it. The dressings used in all the cases cited were simply carbolic water, lint, and gutta-percha tissue; over that a compress of cotton cloth and a bandage.

I am, Sir, yours truly,

ALEX. GALBRAITH, M.B.,
Surgeon-Major, E.A.

Suakin, July 26th, 1884.

THE ANCOATS MURDER CASE.

To the Editor of THE LANCET.

SIR,—Since the issue of last week's LANCET, in which you make some comments in a leading article on what has been called the Ancoats murder, my attention has been directed to certain facts connected with the case. It appears that the accused man, Donnelly, was, eighteen months ago, a patient of mine at the Hospital for Epilepsy and Paralysis, suffering from a severe form of epilepsy, accompanied with serious attacks of temporary mental derangement. At that time the patient stated that under the influence of his complaint he had frequently committed assaults and other crimes, for which he had been arrested, and even wrongly punished by imprisonment. While in the hospital, on several occasions he performed acts of violence obviously under insane impulses, and of which he was afterwards totally unconscious. He was finally discharged unrelieved, and considered as incurable. Although it was obvious at the time that this individual should have been placed under some kind of restraint, the law does not recognise the necessity of interfering with the liberty of the subject under such circumstances. Accordingly, after years of minor misdemeanours against society, it is only after murder and homicidal assault have been perpetrated—a sister having been killed and a mother mutilated—that the actor in all these offences has received the official attention which his case has so long merited. Furthermore, this unfortunate wretch, having at last been arraigned before a jury of his countrymen, has been compelled to undergo the mental torture not only of being tried for the most awful crime of which a man can be accused, but of being pronounced guilty of wilful murder, and actually sentenced to death as a malefactor of the most brutal and unnatural type. That this legal judgment has since been partially remitted will be little consolation to the accused or his family, after all the agonies of mind they must have endured.

I quite agree with your editorial remarks that the essential facts connected with an important criminal inquiry should be elicited at the trial, and not after the accused has been condemned to death as a murderer, and my object in addressing this letter to you is to express the opinion that in this case the disastrous uncertainty might have been entirely avoided had the matter been properly investigated at that time. There seems, in short, to have been an oversight on the part of the defence in failing to ascertain the ordinary circumstances in behalf of the prisoner. He had been a patient of Dr. Dreschfeld of Manchester, who doubtless could have testified to his condition. He was under my own observation for some months. I possess full notes of his case, and could have strongly advocated his irresponsibility. Although the authorities were duly informed that the accused had been an inmate of at least two public hospitals, no efforts were made to utilise this evidence in his favour, and no medical man was called upon to prove his mental condition. Those, in short, who could have placed the whole matter in such a light as would have convinced any jury

of the innocence of the prisoner were in no way consulted. All that was thought necessary in this respect was to demand the attendance of a nurse as a witness, who was called upon to answer questions of opinion which might have severely taxed the acumen of the most talented psychologist. Even this was the result of chance, and due to the matron of one hospital, who, accidentally seeing the case in the newspapers, voluntarily communicated with the police, informing them of our experience of Donnelly's habits.

Without going further into this case than pointing out the absence of obtainable medical advice, does it not appear that, owing to its omission, the defence was very imperfectly conducted, and that there was great negligence in failing to elicit what would have been of vital importance to the accused? No one acquainted with the mental condition of the prisoner, and reading the public reports of his trial, could have the slightest doubt of his irresponsibility in the crime he committed, and had the sentence of the law been carried into effect, it would have been little else than an official murder. Had this been properly represented to the jury at the trial, there can be no question that their verdict would have been different. It is scarcely justice that in this momentous problem of trying a man for his life important considerations should be withheld, and that, as a result, a man should be denounced as a murderer, condemned to death, and only saved from execution by a tardy and precarious after-investigation. As it is, the public have a right to be informed whether this individual is for the future to be considered and treated as a lunatic, and consequently as an innocent man, or whether he is to undergo penal servitude for life as a malefactor.

I am, Sir, yours faithfully,

Queen Anne-street, Aug. 12th, 1884. A. HUGHES BENNETT.

LIVERPOOL.

(From our own Correspondent.)

THE HOLIDAY SEASON.

THE annual holiday, so grateful to all who dwell in large cities, has already been enjoyed by a large number of citizens, including both practitioners and patients. Liverpool possesses admirable facilities for a pleasant holiday trip. Within a short railway journey are the English lake and Welsh mountain districts. Seven hours' pleasant journey by rail brings visitors to Glasgow or Edinburgh, whence all that is attractive in Scotland may be easily reached. Those who prefer the sea have an *embarrass de richesse* in the many sea trips which are offered daily to the Welsh and Irish coasts, the Isle of Man, and the west coasts of Cumberland and Scotland. A very enjoyable trip is from Liverpool to Leith round the north of Scotland, calling at Oban, Stornoway, Stromness, and other points of attraction, occupying five days. Every care is taken to secure the comfort of the passengers, who thus have the opportunity of seeing the most picturesque parts of Scotland under most favourable auspices.

KEEPING OUT THE CHOLERA

Considering the constant communication which is maintained between Liverpool and the different French seaports, it is gratifying to state that no case of cholera (other than ordinary cases of English cholera) has yet been reported. Every precaution is being taken to prevent infection being imported, and, under the direction of the medical officer of health, the disinfection of watercloseta in crowded streets and courts is being diligently carried out. The *Tarapaca*, a Liverpool ship, was placed in quarantine, having called at Marseilles, and lost one of her hands from what was evidently a case of cholera. It was reported in the local papers that proceedings had been taken against the sanitary authorities by the owners of the vessel, but this has been contradicted by the latter, who were only too willing to afford every assistance.

THE HEAT.

Although the thermometer has not attained here the height recorded in London, it has been higher than has been known for some years, considerably exceeding 80° in the shade. For some days past there have been appearances indicating a coming storm, and, at the present time, it is much cooler.

THE RECENT CASE OF GOOD *v.* WHITTLE.

Actions against medical men have a tendency, like some diseases, to appear from time to time in an epidemic form, and the recent cases in which Mrs. Weldon was the plaintiff, the Bower and Keates case, and others, would show that the present year is witnessing a recurrence of this epidemic. The case of Good *v.* Whittle, which came to a close last Saturday, has happily ended, so far, in favour of the defendants, who will, however, it is feared, be subject to heavy costs. The verdict has been received with much satisfaction in professional circles, it being evident that they acted throughout in perfect good faith.

IRELAND.

(From our own Correspondent.)

QUEEN'S COLLEGES COMMISSION.

THE members of this Commission held a brief meeting on the 7th inst. Dr. Banks, Regius Professor of Medicine in the University of Dublin, was examined, and stated that his opinion of the standard of education both in Arts and Medicine in the Queen's Colleges was very high. He considered that the period of study for the profession of medicine was too short in this country, and believed that competitive examinations had done a great deal of harm. He objected to men without sufficient education entering the profession, and thought it a great pity that poor men should do so. The Commissioners on Monday last resumed that part of their inquiry relating to the medical schools in connexion with the Queen's Colleges, when Dr. Cruise and Messrs. W. J. Stoker and McArdle were examined.

MERCER'S HOSPITAL, DUBLIN.

Steps are being taken to have this institution—one of the oldest in Dublin, its existence dating back 150 years—enlarged by an addition fronting King-street. The projected building will comprise a new surgery, theatre, and pharmacy, with apartments for the house-surgeon, matron, and resident pupils; and it is also intended to provide a new waiting-room for extern patients. It is probable that a pay-ward will be established, as exists in most hospitals, and which it is expected will add to the funds of the institution. At present there is a debt due amounting to some £1300, which impedes the usefulness of the hospital, and it is to be hoped that the charitable will remove this debt and contribute liberally towards the expense of erecting the projected addition for a very deserving institution.

MIDDLETON WATER-SUPPLY AND SEWERAGE.

In consequence, as alleged, of the insanitary condition of this town, and the impure and insufficient supply of water, 108 cases of fever were treated in the hospital during the past ten months, with a mortality of 37. Dr. Foley, the medical officer, has drawn attention to the subject, and the Local Government Board have requested the guardians to take immediate steps to remedy the defects complained of.

PRECAUTIONS AGAINST CHOLERA.

Arrangements have now been completed for the berthing of infected vessels arriving in Dublin. Two large buoys have been placed at the North Wall Basin, where such vessels will be moored until removal from quarantine. The hospital ship has also been thoroughly fitted up for the reception of patients.

A BELFAST HOSPITAL SATURDAY.

A meeting of the special committee appointed to promote this movement was held recently at the Belfast Royal Hospital. The collection has been arranged to take place at upwards of one hundred stations on the last Saturday of this month, and it is to be hoped that the undertaking will be generously supported.

EXCISION OF THE LOWER JAW.

A few days ago Mr. Lambert H. Ormsby, of the Meath Hospital, Dublin, removed part of the lower jaw of a woman aged twenty-seven for a secondary return of ossifying sarcoma. A free incision was made, splitting the cheek from the commissure of the lip to the lobe of the ear, which laid bare the tumour, which was removed quite close to the temporo-

maxillary articulation. Considerable hæmorrhage followed from an unusual number of vessels, which were tied with chromocised gut. The case has since progressed favourably. Mr. Ormsby also operated on a woman aged thirty, who had undergone Symes' amputation of the foot six years previously; and although the parts rapidly healed, she had suffered the most excruciating pain in one defined spot at the end of the stump. An exploratory incision was made over the spot indicated, and a small piece of silver suture that had become embedded in the soft parts close to the bone was removed, and which had no doubt given rise to the pain for the past six years.

An election for a medical officer to Dundalk Workhouse took place last Monday, when Dr. Kearney was appointed at a salary of £100 per annum, with a fee of one guinea for each consultation as sanitary officer.

Dublin, Aug. 12th.

PARIS.

(From our own Correspondent.)

THE CHOLERA.

CHOLERA is still lurking in and about the neighbourhood of Toulon and Marseilles, but the admissions and deaths are steadily decreasing. The debate at the Academy of Medicine on the epidemic is being drawn out, and M. Fauvel, who is following it from his retreat in the country, has written to say that nothing as yet, either in the course of the malady or in the debate at the Academy, has transpired to induce him to alter his opinion as to its nature. From the discussions, however, it may be gathered that there are three opinions on the subject. The first, which is the most commonly entertained, is, that "cholera nostras," or, as it is also termed, sporadic or simple cholera, is an "individual" malady—that is, it strikes only certain individuals; it is non-contagious, and very different from Asiatic or Indian cholera. The second opinion is that both the maladies are one and the same, differing only in degree. The third is that maintained by M. Fauvel, and perhaps a few others, to the effect that the malady reigning at Toulon and Marseilles is neither the one nor the other, but that the present epidemic was brought about by special local conditions, and that it must die out without extending much further, as it is essentially non-contagious, and consequently untransportable. Dr. Ernest Besnier, well known for his writings on epidemiology, made a very important communication in response to M. Jules Guérin and other orators at the Academy on the subject of cholera, and in expressing his surprise at the slow progress that is being made in the science of epidemiology, availed himself of the opportunity of proposing the creation of a chair of Epidemiology in all the medical faculties of the French Republic.

A NEEDED REFORM.

A propos of epidemiology and public hygiene, Dr. Liouville has proposed at the Chamber of Deputies, a *projet de loi* tending to place under the same direction the different offices of public salubrity, which are just now dispersed among the various Ministers of State, much to the inconvenience of individuals and the delay of public business.

PRIZES FOR WORKS ON TEMPERANCE.

The Temperance Society of Paris offers a prize of 2000 francs for competition this year for works relating to temperance and to spirituous liquors, in reference either to their composition or to their action on the economy. While no special subject is proposed, the Society would draw particular attention to the following subjects: "Hereditary Alcoholism," "Measures which should be taken concerning Habitual Drunkards." The money will be divided among the successful candidates. The treatises, which may be printed or in manuscript, are to be forwarded to the General Secretary of the Society, 6, Rue de l'Université, Paris, before January 1st, 1885.

DEATH OF BARON THÉNARD.

Baron Thénard, member of the Academy of Sciences and son of the celebrated chemist of the same name, died on Friday last at the Chateau of Talmey, in Burgundy, from an attack of apoplexy, in the sixty-sixth year of his age. He occupied at the Academy the chair of Moquin-Tandon in the Section of Rural Economy. The scientific works of Baron Thénard are well known to chemists and agronomists. It was this distinguished chemist who first succeeded in liquefying phosphoretted hydrogen, which renders spontaneously inflammable another gaseous substance similarly composed. It is this substance which forms the basis of the ignis fatuus observed in marshy grounds and cemeteries. Baron Théoard devoted a great deal of his time and attention to the phylloxera, and was member of the commission instituted in France in view of remedying the evil caused to the vineyards in this country.

Dr. Lannelongue has been appointed Professor of Surgical Pathology at the Paris Faculty of Medicine, in the room of Dr. Le Fort, transferred to the Chair of Clinical Surgery.

August 13th.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Thursday, the 7th inst., the Canal Boats Act Amendment Bill was read a third time and passed. On Friday, the 8th, the Criminal Lunatics Bill was read a third time and passed.

On Tuesday, the Disused Burial-grounds Bill, the object of which is to make it illegal to erect any building upon such grounds except those connected with the church attached thereto, was read a third time and passed. The Cholera &c. Protection Bill was also read a third time and passed.

Sewage of London.

In the House of Commons on Friday, August 8th, in reply to Mr. Borlase, Sir C. Dilke gave explanations as to the amount and cost of the disinfectants employed in deodorising the sewage of London. About twenty tons of perchloride of lime, and between three and four tons of permanganate of potash, are used for the purpose, the cost for the latter being about £130, and of the former £9 per ton.

The Army Medical Department.

On Tuesday, Mr. Ross asked the Secretary of State for War whether the prefix "Royal" was to be omitted from the Army Medical Department, notwithstanding the recommendation of Lord Morley's Committee that it should be constituted a Royal corps.—The Marquis of Hartington said the recommendation of Lord Morley's Committee referred to in the question was not a very strong one, and might perhaps be regarded rather in the light of a suggestion. Looking at the position of other military departments which had not this distinction, he did not think it desirable to act upon the suggestion of the committee.

Obituary.

SIR ERASMUS WILSON, F.R.C.S.

THE death of Sir Erasmus Wilson, late President of the Royal College of Surgeons, occurred at Westgate-on-Sea on the 7th inst. On the 23rd ult. Sir Erasmus attended at the consecration of St. Saviour's Church, Westgate-on-Sea, of which he had laid the first stone eleven months previously, and three days later he was attacked by inflammation of the bowels which terminated fatally. During the last twelve months he had endured the affliction of almost total blindness.

The son of a naval surgeon, James Erasmus Wilson was born in 1809. He obtained his professional education in London and Aberdeen, and became a Member of the Royal College of Surgeons in 1831. He was appointed Demonstrator of Anatomy at University College. On the retirement, however, from University College Hospital of Dr. Jones Quain, Mr. Wilson severed his connexion with that institution and established the Sydenham College School of Anatomy, an undertaking which did not prove successful. He then commenced practice in Charlotte-street, Fitzroy-square, and here, by means of taking pupils, &c., he struggled on for some years. His father, after retiring from the navy, engaged a large mansion at Deham, Bucks, for the

purpose of carrying on a private lunatic asylum, and it was here that Mr. Wilson became acquainted with the late Mr. Wakley, Coroner for Middlesex. Some time afterwards he was appointed sub-editor of THE LANCET, a position he held for about three years; after relinquishing this post, he was for a considerable time upon the staff of writers. He was appointed consulting surgeon to the Marylebone Infirmary, an appointment which he held during a great part of the time that the late Dr. Boyd was resident surgeon; here he had extraordinary opportunities of witnessing every phase of hospital surgery.

Having chosen skin diseases as his specialty, Mr. Wilson visited the East to make himself acquainted with leprosy. He went for his holidays to Switzerland and the Valais to examine goitre, and roamed over Italy with an eye rather to ringworm and the many cutaneous disorders of an ill-fed peasantry than to the artistic beauties of the country. Among the best known of his works are "The Dissector's Manual," "The Anatomist's Vade Mecum," "The Student's Book of Diseases of the Skin," "A Healthy Skin—a popular treatise on its management," "Report on Leprosy," the article on "Skin" in Cooper's Surgical Dictionary, and some elaborate Anatomical Plates. He also wrote articles and reports for journals of medicine and science, and was for a time correspondent on Surgery to the Academies of Medicine of Paris and Leipsic. It is unquestionable that Mr. Wilson knew more about skin diseases than any man of his time. He cured where others had failed to cure; and his works on Dermatology, though they met with pretty searching criticism at the time of their appearance, have nearly all maintained their position as text-books. The horrible cases of scrofula, anæmia, and blood poisoning which he witnessed among the poor of London—they are happily rarer now than they were half a century ago—enlisted his warm sympathies. But he had to deal with rich patients as well as poor, and over these the masterful stamp of his mind enabled him to exercise despotism in matters of diet. Wilson was not only a consummate dietician, but he knew how to make his patients submit to have their bodies placed under martial law.

The greatest incident of his career, however, and that which brought him into notice with the general public was the inquest at Hounslow upon the body of a soldier who had died after the receipt of a regimental flogging. This inquest was held by the late Mr. Wakley, and engaged the attention of the public for many days. After ten adjournments a verdict was given, owing in a great measure to Mr. Wilson's evidence, to the effect that death was caused by the flogging. This occurrence proved the death-blow to flogging in the army, and the inquest was soon followed by a Parliamentary inquiry, which resulted in that punishment being erased from the regimental code.

Professional honours were lavished on Mr. Wilson abundantly in reward of his labours. He became Fellow of the College of Surgeons in 1843, member of the Council in 1870, and President in 1881. In 1869 he founded, at his own expense, the chair and museum of Dermatology in the College of Surgeons, and was elected the first professor. He also instituted the chair of Pathology in the University of Aberdeen. In our last issue we announced that at a meeting of the Council of the Royal College of Surgeons the honorary gold medal of the College was awarded to Sir Erasmus Wilson in recognition of his great liberality in his contributions to the museum, in the endowment of the pathological curatorship, and in the foundation of the professorship with which his name will always be associated. Since this medal was founded in 1800 it has only been six times presented.

Erasmus Wilson erected a chapel and a new wing to the Sea-bathing Infirmary at Margate; he built the master's house at the Epsom Medical College in 1872; and restored the Church of Swanscombe, Kent, in 1873. For these and other similar acts of bounty Her Majesty conferred the honour of knighthood on Mr. Wilson in 1881; but by that time he had earned national fame of a new sort by bringing the obelisk—generally but inaccurately named Cleopatra's Needle—to England. This obelisk was one of two which had long lain in the sands at Alexandria. The French have one which has stood in the Champs Elysée since 1835. That which now adorns the Thames Embankment was acquired for Great Britain by Sir Ralph Abercromby in 1801; but it was not removed. It was offered to the British Government by Mehemet Ali in 1840, and again by the Khedive in 1877; but still the British Government did not think it worth while to incur the expense of transport. Erasmus Wilson thought this derogatory to the national dignity, and undertook to have the obelisk brought over at his own cost. This amounted to upwards of £10,000; but eventually it was brought to London, and the obelisk was placed on its present site in September, 1878.

Respecting his wealth, it is well known to all his friends that Sir Erasmus did not amass this merely as the result of his professional practice; it was the fortunate investment of his "guineas," which multiplied in various metropolitan companies, amongst which "gas" may be cited as wonderfully lucrative, and it has been stated that he was one of the largest shareholders in metropolitan and suburban gas companies. Railways, also, he dealt largely in, and always to his great benefit.

Sir Erasmus Wilson leaves no issue. He was married in 1841 to Miss Doherty, daughter of Mr. James Doherty, who survives him. A brother, Dr. Marris Wilson, who assisted him in his early practice, also survives him. We regret to say that this gentleman has been for the last twelve years utterly prostrate, suffering from paralysis. In addition to this affliction, which he has borne with Christian patience, Dr. Marris Wilson also suffers from total blindness.

The funeral of Sir Erasmus Wilson took place on Wednesday, when his remains were interred in Swanscombe Churchyard.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen passed the Primary Examination for the Licence on August 7th:—

C. R. Adams, J. V. Albert, G. R. Anderson, J. R. Anderson, J. W. Applegate, E. A. Armstrong, G. C. B. Atkinson, J. C. Baines, G. T. C. Barber, A. M. Barford, W. J. T. Barker, W. B. Barnard, H. N. Baron, H. C. Barr, J. C. Barr, E. Barrett, S. E. Barrett, W. J. Bearblock, J. Beddow, J. H. Blakeney, W. Bowden, W. G. Bower, J. A. Bradbury, F. C. Brodie, H. Browne, R. H. J. Browne, A. J. Bulger, H. M. Burke, A. Carter, A. L. Castel, C. D. Christmas, F. W. Clark, W. R. Cockill, S. J. Cole, H. S. Collier, A. W. Cooke, T. S. Coombe, H. A. W. Coryn, J. J. Coulton, E. Creighton, E. W. Crossley, H. Dane, F. M. Davies, G. C. Davis, J. P. De Bariatte, A. J. De Butts, E. A. G. Dowling, H. E. Drake-Brockman, C. H. Eccles, A. D. Edginton, G. A. Estcell, H. H. Ellis, W. N. Evans, F. W. Farr, W. Fisher, W. F. Fisher, J. R. Gallard, T. W. Gibbard, J. H. Gilbertson, J. C. Gilmour, J. Girling, J. Good, L. D. Gover, C. T. Griffiths, R. Hamilton, H. Hamilton, E. B. Harris, F. R. T. Harris, F. S. Hawkins, W. Hawley, H. H. Heffernan, A. G. Hendley, R. G. Hicks, C. M. Hill, C. J. P. Hogarth, E. B. Holland, A. K. Holt, H. Holvoake, S. P. Hosegood, W. L. Hubbard, A. H. W. Hunt, W. R. Y. Ives, A. W. James, P. D. James, J. H. E. Jarvis, H. H. Joslen, L. E. Jowers, T. W. Kelly, G. D. Kerr, E. E. Kershaw, T. M. King, H. W. Knowles, E. L. Lancaster, W. B. Lane, C. R. T. Langton, E. T. Larkam, H. Layng, B. A. Lewis, H. W. Lewis, H. Lloyd, A. Lucas, K. W. I. Mackenzie, H. H. B. Macleod, C. T. B. Maisey, H. E. Mann, H. R. Mansell, H. B. Marriott, G. Michelmore, J. Moore, F. B. Morse, W. Mortimer, J. E. Moyse, W. G. Nash, F. Naumann, S. Nicklin, J. Nixon, J. Norton, F. Osborne, A. D. Owen, A. T. Ozzard, F. Pain, F. W. Parker, W. Parker, G. W. F. Paul, W. P. Peake, H. J. Pocock, J. E. L. Pollard, A. E. Poolman, T. M. Porter, R. E. Powell, W. Powell, P. Preston, E. L. Puddicombe, S. W. Quartley, H. E. Rayner, R. Relton, G. W. Richards, A. Rigden, T. W. Robbins, C. D. H. Rygate, J. G. V. Sapp, W. J. Scott, H. B. Seddon, H. F. Semple, R. W. Senior, R. R. Sieman, F. J. P. Smith, H. Smith, E. A. Soape, H. Stelfox, P. W. Streatfeild, P. C. H. Strickland, W. C. Swayne, F. R. P. Taylor, J. Thomas, T. N. Thomas, W. Thompson, A. Turner, W. Venis, W. H. Vickery, C. S. Vines, C. H. Wade, R. F. Waites, C. H. Wakeham, R. W. Walsh, A. H. Ward, W. Watkins, R. H. Wellington, H. F. Whitchurch, E. R. White, J. H. White, G. R. Williams, J. F. Williams, A. Wilson, J. W. Winterburn, F. D. Woodhouse, W. Woodward, W. L. Woolicombe, G. C. W. Wright.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 7th inst.:—

Dumbleton, Charles Eardley, L.S.A., Tasmania.
Godfrey, H. J. Clarendon, L.R.C.P.Edin., Lee-park.
Hodge, William Theodore, Middleton.
Mathews, H. E. Hamerton, L.R.C.P.Edin., Longsight, Manchester.
Reily, Alexander Yates, L.S.A., South Norwood-hill.
Shepherd, Lionel John, L.R.C.P.Edin.; Torquay.
Spong, Charles Stuart, L.S.A., Clapham.
Visger, Harman, L.S.A., Clevedon, Somerset.
Waite, Henry, L.R.C.P.Edin., Leeds.

Admitted Members of the College on the 8th inst.:—

Allen, Sydney Glenn, L.R.C.P.Edin., Maida-vale.
Evans, Tegid Aneurin, L.R.C.P.Edin., Clapham.
Greenway, John Henry, L.S.A., Belvedere.
Hinds, Frank, L.S.A., Gondhurst, Kent.
Humphreys, Charles Evan, L.S.A., Llanfair, Welshpool.

Low, Charles William, L.R.C.P.Lond., Plumstead.
Milner, James, L.R.C.P.Edin., Barnsley, Yorks.
Robertson, James Sprent, L.S.A., West Kensington-park.
Tomalin, W. J. Clarkson, L.S.A., Northampton.

The Final Examination for the Membership of the College, which commenced on July 18th, was brought to a close on August 8th. Of the 365 candidates examined, 149 passedto the satisfaction of the Court of Examiners and obtained their diplomas; 75 passed in Surgery, and when qualified in Medicine and Midwifery will be admitted Members; the remaining 141 failed to reach the required standard, and were referred to their further professional studies. Forty-two candidates who had passed in Surgery at previous examinations, having subsequently obtained a Medical degree or licence recognised by the College, were also admitted Members. This is the last examination for the Membership of the College until October. The Museum and Library will be closed as usual during the month of September for the necessary repairs, painting, &c.

UNIVERSITY OF LONDON. — The following candidates have passed the recent Intermediate Examination in Medicine:—

ENTIRE EXAMINATION.

FIRST DIVISION.

Alexander, Sidney Robert, Guy's Hospital.
Bahadurji, Kaikhosro Nasarvanji, University College.
Balgarnie, Wilfred, St. Bartholomew's Hospital.
Biddlecombe, Edward Henry, St. Bartholomew's Hospital.
Bradford, John Rose, B.Sc., University College.
Brook, William Henry Breffit, St. Bartholomew's Hospital.
Brown, Frederick Nathaniel, St. Bartholomew's Hospital.
Burghard, Frédérick François, Guy's Hospital.
Chitty, John Shaw Willes, Charing-cross Hospital.
Clarke, James Jackson, St. Mary's Hospital.
Clarke, William Frederick, Guy's Hospital.
Featherstone, William Barltrop, Queen's and Mason Colleges, Birmingham.
Helme, Thomas Arthur, University of Edinburgh and University College.
Lawrence, Thomas William Pelham, University College.
Lyndon, Arnold, St. Bartholomew's Hospital.
Macevoy, Henry John, B.Sc., St. Thomas's Hospital.
Mariette, Ernest Paul Alphonse, King's College.
Rowell, George, Guy's Hospital.
Smith, John Anderson, St. Bartholomew's Hospital.
Thompson, James Edwin, Owens College.
Tomlinson, William Henry, Owens College.
Tonking, John Herbert, St. Thomas's Hospital.
Toogood, Frederick Sherman, University College.
Trevelyan, Edmond Fauriel, St. Bartholomew's Hospital.
Whentley, James, King's College.

SECOND DIVISION.

Ashworth, John Wallwork, Owens College.
Barclay, Wilfred Martin, Bristol Medical School.
Bindley, Robert Alfred, Guy's Hospital.
Blackler, Henry John, Guy's Hospital.
Bowman, Henry Claxton, Owens College.
Brazil, Walter Henry, Owens College.
Brown, Herbert Henry, University College.
Burrell, Arthur William, London Hospital.
Castle, Bernard, St. Bartholomew's Hospital.
Davis, Arthur Holdsworth, St. Bartholomew's Hospital.
Dobson, Leonard Charles Talbot, St. Bartholomew's Hospital.
Elliott, William Henry Wilson, Guy's Hospital.
Furnivall, Bryan, St. Bartholomew's Hospital.
Gardner, William Thomas, St. Bartholomew's Hospital.
Gault, Arthur Henry, Owens College.
Gee, Frederick William, University College.
Godfrey, Albert Edward, St. Thomas's Hospital.
Greig, Duncan McBean, University College.
Hamel, Julius, University College.
Hensley, Philip Henry, King's College.
Holder, Sydney Ernest, University College.
Jordan, Walter Ross, Queen's and Mason Colleges, Birmingham.
Kauffmann, Otto Jackson, Owens College.
Lindow, Albert, King's College.
Luff, Arthur Pearson, B.Sc., St. Mary's Hospital.
Lys, Henry Grabham, London Hospital.
Moore, Robert Lee, Queen's College, Belfast.
Nevins, John Ernest, Guy's Hospital and Liverpool School of Medicine.
Pagden, Trayton Charles, St. Bartholomew's Hospital.
Permewan, William, University College.
Pugh, John Williamson, London Hospital.
Rivers, William Halse Rivers, St. Bartholomew's Hospital.
Serville, Charles Frederick, Owens College.
Smith, Hugh, Guy's and London Hospitals.
Solly, Ernest, St. Thomas's Hospital.
Spencer, Walter George, St. Bartholomew's Hospital.
Sunder, Charles Edward, University College.
Swayne, Walter Careless, Bristol Medical School.
Wheaton Samuel Walton, St. Thomas's Hospital.
Wheeler, James Atkin, Guy's Hospital.
Young, Charles Wheeler Forest, St. Bartholomew's Hospital.

EXCLUDING PHYSIOLOGY.

FIRST DIVISION.

Smith, Henry Ernest Hill, King's College.

SECOND DIVISION.

Green, Albert, Guy's Hospital.
Kelson, William Harry, London Hospital.
Oliver, Charles Pye, Charing-cross Hospital.
Risdon, William Newt, Guy's Hospital.
Stewart, Arthur Hastings Lanfear, St. Mary's Hospital.

PHYSIOLOGY ONLY.

FIRST DIVISION.

Eady, George John, King's College.
Taylor, Charles Henry, King's College.
Wynter, Walter Essex, Middlesex Hospital.

SECOND DIVISION.

Ackland, Charles Kingsley, King's College.
Williams, Reginald Muzio, St. Thomas's Hospital.

The name Nicholas Charles Ridley (St. Mary's Hospital) was inadvertently omitted from the list published last week of gentlemen who passed the Preliminary Scientific Examination of the University.

UNIVERSITY OF ABERDEEN.—During the past year the following candidates received the degree of M.D.:—

Brand, Alexander Theodore, M.B., C.M., Driffield, Yorkshire.
Brown, William Carnegie, M.B., C.M., Penang.
Davies, Morgan, M.B., C.M., Llangwyryfon, Cardiganshire.
Fehrsen, Frederick John, M.B., C.M., Kingston, Jamaica.
Findlater, Sylvester Williamson, M.B., C.M., Dufftown.
Footner, Edward, M.B., C.M., Brigade Surgeon.
Hodgson, Joseph Willoughby, M.B., C.M., Exmouth, Devon.
Jones, Timothy Siddall, M.B., C.M., Swansea.
Knowles, Edward, M.B., C.M., Birkenhead.
Le Mottée, G. H., M.B., C.M., Army Med. Depart., Chatham.
Low, Charles, M.B., C.M., Arbroath.
Millar, James, M.B., C.M., Arbroath.
Moir, John Hay, M.B., C.M., Burton-on-Trent.
Murray, John, M.B., C.M., Surgeon-Major, Ipswich.
Nicol, Alexander, M.B., C.M., Inverurie.
Phillips, Henry Astley, M.B., C.M., Waterbeach.
Robb, J. Bernhardt Klingner, M.A., M.B., C.M., Montrose.
Tuckey, Charles Lloyd, M.B., C.M., London.
Walker, James Hutchison, M.A., M.B., C.M., North Borneo.
Wilde, Percy Roberts, M.B., C.M., Bath.

The following received the degrees of M.B. and C.M.:—

Adamson, Henry M'Kenzie, Morphie, Montrose.
*Allden, George Henry, Southampton.
Anderson, John Hector, Aberdeen.
Anderson, Joseph, Preston.
Barrett, Albert Henry, Wallingford, Berkshire.
Battiscombe, Christopher George, Blackheath.
Bennet, Francis Alexander, M.A., Cullen.
Bett, James Wilson, Dundee.
*Clark, William Ronaldson, M.A., Edinburgh.
Cook, James Will, Allness.
Cowie, Alexander Mitchell, Mortlach.
Craig, James Forsyth, M.A., Leslie, Insch.
Currie, George Burnett, M.A., Aberdeen.
Dalton, Henry Moger Cyril, Newcastle, New South Wales.
Davidson, Alexander Gordon, M.A., Wartle, Aberdeenshire.
Duffus, George, Cullen.
Duguid, Alexander Gray, Longside, Aberdeenshire.
Elmslie, Walter Angus, Resthwet, Chapel of Garioch.
Faulkner, Charles Albert, Rajahmundry.
Fehrsen, John Andrew, Graaf Reinet, South Africa.
Forster, William Revely, Blyth, Northumberland.
*Gibson, Thomas Best, M.A., Aberdeen.
*Gordon, John, Keith.
Graham, Thomas Bell, Ecclefechan.
Grant, Andrew, Balmoral.
Harrisson, John William, Sandwich, Kent.
Lyall, Charles Robert, Aberdeen.
Macdonald, Stuart, Elgin.
Mackintosh, Frank Innes, M.A., Deskford, Cullen.
Maclean, Alexander, F.R.C.S. Ed., Thurso, Caithness.
Maclennan, Andrew Anderson, Nairn.
Milne, George, Methlic.
Mitchell, James, Aberdeen.
Munro, James Mitchell, Inverurie.
Murchison, Alexander, Lochcarron.
Poonen, Eapen, B.A., India.
Presslie, Robert Dowell, Aberdeen.
Reid, Alexander, Auchindoir.
Reid, Irvine Kempt, Aberdeen.
*Roberts, Alfred Ernest, London.
Robertson, William, M.A., Rathen.
Russell, John, Longhope, Orkney.
Ruxton, William Ledingham, West Riding Asylum, Wakefield.
Savege, James, Montrose.
Simpson, Patrick George, Aberdeen.
Sutherland, William Leith Ireland, Aberdeen.
Thiele, Herman, Bermuda.
Walker, Leslie Fyfe, Aberdeen.
Webb, John Eustace, Windsor.
*Will, James, Elion.
Windle, John Thomas, Burnley.
Young, James Martin, Boyndlie, Fraserburgh.

* Received their Degrees with Honourable Distinction.

The John Murray Medal and Scholarship were awarded to Arthur Greatorex Smith, and will be presented to him along with his diplomas on his attaining the necessary age.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — The undermentioned gentlemen were admitted Fellows of the College at recent examinations:—

Boyd, H. W. B. A.M.D.
McCarthy, Charles William.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 7th:—

Buss, Howard Decimus, South-hill Park, Hampstead.
Carr, John Walter, Bloomsbury-square.
Joberns, William, Aldridge, Walsall.
Wallington, William Tratman, Kimpsford-road.
Spong, Charles Stuart, Clapham.
Visger, Harman, Brompton-road.

The following gentleman also on the same day passed the Primary Professional Examination:—

Pemberton, John Oliver, London Hospital.

ELECTION OF EXAMINERS. — The following gentlemen have been elected Examiners by the Society of Apothecaries for the ensuing year:—Henry Bullock, F.R.C.S. Eng., Drs. Alfred Carpenter, Henry R. Crocker, Robert Fowler, F. de Havilland Hall, Frederick J. Hensley, Robert J. Lee, W. Withers Moore, George H. Savage, John S. Stocker, John C. Thorowgood, and Francis Warner.

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AT Wetherby Petty Sessions, on the 7th inst., a lodging-house keeper was fined £1 and costs for having wilfully exposed a domestic servant, whilst suffering from an infectious disease—scarlet fever.

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SUICIDE OF A SURGEON.—At an inquest held at Aylesbury, on the 6th inst., on the body of George David Widdas, M.R.C.S., the jury returned a verdict that deceased destroyed himself by taking chloral hydrate, but that there was not sufficient evidence to show the state of deceased's mind at the time.

BEQUESTS.—The late Mr. W. J. Patterson has bequeathed £1000 to the Royal South Hants Infirmary, £500 to the Southampton Dispensary and Humane Institution, and £150 to the St. Mary's Cottage Hospital. The late Mr. Francis Parnell has left £105 to the Manchester Royal Infirmary.

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Medical Appointments.

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HAINES, ALFRED HENRY, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Tydd District of the Holbeach Union, vice O'Meara.

HICKS, CHARLES CYRIL, M.D. St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Wokingham District of the Wokingham Union, vice Creswell.

JACK, CHARLES, M.D., C.M.Glasg., has been appointed Medical Officer of Health to the Horsforth Urban Sanitary District, vice Libbey.

JONES, T. W. CARMALT, M.A.Camb., F.R.C.S.Ed., has been appointed Assistant-Surgeon to the Western Ophthalmic Hospital.

KEYWORTH, JOHN WHITE, M.D.Lond., M.R.C.S., has been appointed Resident Medical Officer to the Wellington Hospital, New Zealand.

KING, ERNEST EDWARD, M.R.C.S., L.S.A.Lond., has been appointed Resident Obstetric Physician to the Middlesex Hospital.

KITCHEN, CHAS. F. HEWICK, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Cheetham District of the Prestwich Union, vice Crean.

KNOX, Dr. D. N., has been appointed Surgeon to the Royal Infirmary, Glasgow, vice Morton, whose term of offices expires on Nov. 1st.

NEWMAN, ARTHUR JOSHUA, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Farncombe District of the Guildford Union, vice La Fargue.

POPPLEWELL, THOS. WM., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Illsworth District of the Towcester Union, vice Crosswell.

PRINGLE, J. J., M.R.C.P. (of Bruton-street), has been elected an Assistant-Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Dr. Coxwell, resigned, on going abroad.

RAY, HENRY, M.B., Ch.M.Glasg., L.R.C.P., L.R.C.S.Ed., has been appointed Honorary Medical Officer to the Goulbourn Hospital, New South Wales.

ROBERTSON, ALEXANDER, M.D.Glasg., F.F.P.S.Glasg., has been appointed Physician to the Royal Infirmary, Glasgow, vice Dr. James Maclaren, resigned.

SMART, DAVID, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse in the Toxteth Park Township.

TRAVIS, W. OWEN, M.S., M.B.Durh., M.R.C.S., has been appointed Demonstrator of Anatomy in the Yorkshire College, Leeds.

WHITSON, Dr., has been appointed Assistant-Surgeon to the Royal Infirmary, Glasgow, vice Dr. Lothian, promoted.

WOOD, WILLIAM, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Cranswick District of the Driffield Union, vice R. Wood, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CLAY.—On the 8th inst., at Windsor-villas, Plymouth, the wife of R. Hogarth Clay, M.D., of a daughter.

COLGATE.—On the 5th inst., at Burlington-place, Eastbourne, the wife of Henry Colgate, M.D., F.R.C.S., of a daughter.

CONNOLLY.—On the 7th inst., at Wickham-road, Brockley, Kent, the wife of Surgeon-Major B. B. Connolly, Army Medical Department, of a son.

GRANGE.—On the 6th inst., at Moffat, N.B., the wife of William D'Oyly Grange, M.D., of a son.

HEYGATE.—On the 4th inst., at Wellingborough, the wife of F. N. Heygate, M.R.C.S. &c., of a son.

VLIELAND.—On the 5th inst., at Sydney Lodge, St. Thomas, Devon, the wife of C. J. Vlieland, M.R.C.S., of a daughter.

YOUNG.—On the 17th ult., at Bequia, St. Vincent, West Indies, the wife of James Vance Young, M.D., of a son.

MARRIAGES.

JEWEL—TUCKER.—On the 5th inst., at St. Peter's Church, St. Pancras, Henry Jewel, M.D., to Kate, second daughter of Mr. C. Tucker.

PARKER—BICKERTON.—On the 7th inst., at St. Bride's, Liverpool, Rushton Parker, B.S., F.R.C.S., of Rodney-street, Liverpool, to Catherine Elizabeth, daughter of the late Thomas Bickerton, Surgeon, of Liverpool.

DEATHS.

BARRAUT.—On the 17th ult., at St. George's-street, Port Louis, Mauritius, Adolphe Rodrigues Barraut, M.D., aged 49.

CAMPBELL.—On the 8th inst., at Warley, Brentwood, Essex, D. Cochrane Campbell, M.D., M.R.C.P., second son of the late Rear-Admiral Campbell, of Barbreck, Argyleshire.

HARRIS.—On the 7th inst., at Buckingham Lodge, Vansittart-road, Torquay, Surgeon-Major F. W. Harris, late Bombay Army, aged 62.

REID.—On the 13th inst., at Madeira-road, Streatham, Alexander William Watson Reid, Surgeon, Royal Navy.

WATSON.—On the 7th inst., Henry Watson, Surgeon, late of Plumstead, aged 84.

N.B.—*A fee of 1s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Low, Charles William, L.R.C.P.Lond., Plumstead.
Milner, James, L.R.C.P.Edin., Barnsley, Yorks.
Robertson, James Sprent, L.S.A., West Kensington-park.
Tomalin, W. J. Clarkson, L.S.A., Northampton.

The Final Examination for the Membership of the College, which commenced on July 18th, was brought to a close on August 8th. Of the 365 candidates examined, 149 passedto the satisfaction of the Court of Examiners and obtained their diplomas; 75 passed in Surgery, and when qualified in Medicine and Midwifery will be admitted Members; the remaining 141 failed to reach the required standard, and were referred to their further professional studies. Forty-two candidates who had passed in Surgery at previous examinations, having subsequently obtained a Medical degree or licence recognised by the College, were also admitted Members. This is the last examination for the Membership of the College until October. The Museum and Library will be closed as usual during the month of September for the necessary repairs, painting, &c.

UNIVERSITY OF LONDON. — The following candidates have passed the recent Intermediate Examination in Medicine:—

ENTIRE EXAMINATION.

FIRST DIVISION.

Alexander, Sidney Robert, Guy's Hospital.
Bahadurji, Kaikhosro Nasarvanji, University College.
Balgarnie, Wilfred, St. Bartholomew's Hospital.
Biddlecombe, Edward Henry, St. Bartholomew's Hospital.
Bradford, John Rose, B.Sc., University College.
Brook, William Henry Breffit, St. Bartholomew's Hospital.
Brown, Frederick Nathaniel, St. Bartholomew's Hospital.
Burghard, Frédérick François, Guy's Hospital.
Chitty, John Shaw Willes, Charing-cross Hospital.
Clarke, James Jackson, St. Mary's Hospital.
Clarke, William Frederick, Guy's Hospital.
Featherstone, William Bartrop, Queen's and Mason Colleges, Birmingham.
Helme, Thomas Arthur, University of Edinburgh and University College.
Lawrence, Thomas William Pelham, University College.
Lyndon, Arnold, St. Bartholomew's Hospital.
Macevoy, Henry John, B.Sc., St. Thomas's Hospital.
Mariette, Ernest Paul Alphonse, King's College.
Rowell, George, Guy's Hospital.
Smith, John Anderson, St. Bartholomew's Hospital.
Thompson, James Edwin, Owens College.
Tomlinson, William Henry, Owens College.
Tonking, John Herbert, St. Thomas's Hospital.
Toogood, Frederick Sherman, University College.
Trevelyan, Edmond Fauriel, St. Bartholomew's Hospital.
Wheatley, James, King's College.

SECOND DIVISION.

Ashworth, John Wallwork, Owens College.
Barclay, Wilfred Martin, Bristol Medical School.
Bindley, Robert Alfred, Guy's Hospital.
Blackler, Henry John, Guy's Hospital.
Bowman, Henry Claxton, Owens College.
Brazil, Walter Henry, Owens College.
Brown, Herbert Henry, University College.
Burrell, Arthur William, London Hospital.
Castle, Bernard, St. Bartholomew's Hospital.
Davis, Arthur Holdsworth, St. Bartholomew's Hospital.
Dobson, Leonard Charles Talbot, St. Bartholomew's Hospital.
Elliott, William Henry Wilson, Guy's Hospital.
Furnivall, Bryan, St. Bartholomew's Hospital.
Gardner, William Thomas, St. Bartholomew's Hospital.
Gault, Arthur Henry, Owens College.
Gee, Frederick William, University College.
Godfrey, Albert Edward, St. Thomas's Hospital.
Greig, Duncan McBean, University College.
Hamel, Julius, University College.
Hensley, Philip Henry, King's College.
Holder, Sydney Ernest, University College.
Jordan, Walter Ross, Queen's and Mason Colleges, Birmingham.
Kauffmann, Otto Jackson, Owens College.
Lindow, Albert, King's College.
Luff, Arthur Pearson, B.Sc., St. Mary's Hospital.
Lys, Henry Grabham, London Hospital.
Moore, Robert Lee, Queen's College, Belfast.
Nevins, John Ernest, Guy's Hospital and Liverpool School of Medicine.
Pagden, Trayton Charles, St. Bartholomew's Hospital.
Permewan, William, University College.
Pugh, John Williamson, London Hospital.
Rivers, William Halse Rivers, St. Bartholomew's Hospital.
Seville, Charles Frederick, Owens College.
Smith, Hugh, Guy's and London Hospitals.
Solly, Ernest, St. Thomas's Hospital.
Spencer, Walter George, St. Bartholomew's Hospital.
Sunder, Charles Edward, University College.
Swayne, Walter Careless, Bristol Medical School.
Wheaton Samuel Walton, St. Thomas's Hospital.
Wheeler, James Atkin, Guy's Hospital.
Young, Charles Wheeler Forest, St. Bartholomew's Hospital.

EXCLUDING PHYSIOLOGY.

FIRST DIVISION.

Smith, Henry Ernest Hill, King's College.

SECOND DIVISION.

Green, Albert, Guy's Hospital.
Kelson, William Harry, London Hospital.
Oliver, Charles Pye, Charing-cross Hospital.
Risdon, William Newt, Guy's Hospital.
Stewart, Arthur Hastings Lanfear, St. Mary's Hospital.

PHYSIOLOGY ONLY.

FIRST DIVISION.

Eady, George John, King's College.
Taylor, Charles Henry, King's College.
Wynter, Walter Essex, Middlesex Hospital.

SECOND DIVISION.

Ackland, Charles Kingsley, King's College.
Williams, Reginald Muzio, St. Thomas's Hospital.

The name Nicholas Charles Ridley (St. Mary's Hospital) was inadvertently omitted from the list published last week of gentlemen who passed the Preliminary Scientific Examination of the University.

UNIVERSITY OF ABERDEEN.—During the past year the following candidates received the degree of M.D.:—

Brand, Alexander Theodore, M.B., C.M., Driffield, Yorkshire.
Brown, William Carnegie, M.B., C.M., Penang.
Davies, Morgan, M.B., C.M., Llangwyrfon, Cardiganshire.
Fehrsen, Frederick John, M.B., C.M., Kingston, Jamaica.
Findlater, Sylvester Williamson, M.B., C.M., Dufftown.
Footner, Edward, M.B., C.M., Brigade Surgeon.
Hodgson, Joseph Willoughby, M.B., C.M., Exmouth, Devon.
Jones, Timothy Siddall, M.B., C.M., Swansea.
Knowles, Edward, M.B., C.M., Birkenhead.
Le Mottée, G. H., M.B., C.M., Army Med. Depart., Chatham.
Low, Charles, M.B., C.M., Arbroath.
Millar, James, M.B., C.M., Arbroath.
Moir, John Hay, M.B., C.M., Burton-on-Trent.
Murray, John, M.B., C.M., Surgeon-Major, Ipswich.
Nicol, Alexander, M.B., C.M., Inverurie.
Phillips, Henry Astley, M.B., C.M., Waterbeach.
Robb, J. Bernhardt Klingner, M.A., M.B, C.M., Montrose.
Tuckey, Charles Lloyd, M.B., C.M., London.
Walker, James Hutchison, M.A., M.B., C.M., North Borneo.
Wilde, Percy Roberts, M.B., C.M., Bath.

The following received the degrees of M.B. and C.M.:—

Adamson, Henry M'Kenzie, Morphie, Montrose.
*Alldes, George Henry, Southampton.
Anderson, John Hector, Aberdeen.
Anderson, Joseph, Preston.
Barrett, Albert Henry, Wallingford, Berkshire.
Battiscombe, Christopher George, Blackheath.
Bennet, Francis Alexander, M.A., Cullen.
Bett, James Wilson, Dundee.
*Clark, William Ronaldson, M.A., Edinburgh.
Cook, James Will, Ailness.
Cowie, Alexander Mitchell, Mortlach.
Craig, James Forsyth, M.A., Leslie, Insch.
Carrie, George Burnett, M.A., Aberdeen.
Dalton, Henry Moger Cyril, Newcastle, New South Wales.
Davidson, Alexander Gordon, M.A., Wartle, Aberdeenshire.
Duffus, George, Cullen.
Duguid, Alexander Gray, Longside, Aberdeenshire.
Elmslie, Walter Angus, Resthwet, Chapel of Garioch.
Faulkner, Charles Albert, Rajahmundry.
Fehrsen, John Andrew, Graaf Reinet, South Africa.
Forster, William Revely, Blyth, Northumberland.
*Gibson, Thomas Best, M.A., Aberdeen.
*Gordon, John, Keith.
Graham, Thomas Bell, Ecclefechan.
Grant, Andrew, Balmoral.
Harrisson, John William, Sandwich, Kent.
Lyall, Charles Robert, Aberdeen.
Macdonald, Stuart, Elgin.
Mackintosh, Frank Innes, M.A., Deskford, Cullen.
Maclean, Alexander, F.R.C.S. Ed., Thurso, Caithness.
Maclennan, Andrew Anderson, Nairn.
Milne, George, Methlic.
Mitchell, James, Aberdeen.
Munro, James Mitchell, Inverurie.
Murchison, Alexander, Lochcarron.
Poonen, Eapen, B.A., India.
Presslie, Robert Dowell, Aberdeen.
Reid, Alexander, Auchindoir.
Reid, Irvine Kempt, Aberdeen.
*Roberts, Alfred Ernest, London.
Robertson, William, M.A., Rathen.
Russell, John, Longhope, Orkney.
Ruxton, William Ledingham, West Riding Asylum, Wakefield.
Savege, James, Montrose.
Simpson, Patrick George, Aberdeen.
Sutherland, William Leith Ireland, Aberdeen.
Thiele, Herman, Bermuda.
Walker, Leslie Fyfe, Aberdeen.
Webb, John Eustace, Windsor.
*Will, James, Elion.
Windle, John Thomas, Burnley.
Young, James Martin, Boyndlie, Fraserburgh.

* Received their Degrees with Honourable Distinction.

The John Murray Medal and Scholarship were awarded to Arthur Greatorex Smith, and will be presented to him along with his diplomas on his attaining the necessary age.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — The undermentioned gentlemen were admitted Fellows of the College at recent examinations:—

Boyd, H. W. B. A.M.D.
McCarthy, Charles William.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 7th:—

Buss, Howard Decimus, South-hill Park, Hampstead.
Carr, John Walter, Bloomsbury-square.
Joberns, William, Aldridge, Walsall.
Wallington, William Tratman, Kimpsford-road.
Spong, Charles Stuart, Clapham.
Viager, Harman, Brompton-road.

The following gentleman also on the same day passed the Primary Professional Examination:—

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SMART, DAVID, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse in the Toxteth Park Township.

TRAVIS, W. OWEN, M.S., M.B.Durh., M.R.C.S., has been appointed Demonstrator of Anatomy in the Yorkshire College, Leeds.

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Births, Marriages, and Deaths.

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DEATHS.

BARRAUT.—On the 17th ult., at St. George's-street, Port Louis, Mauritius, Adolphe Rodrigues Barraut, M.D., aged 40.

CAMPBELL.—On the 8th inst., at Warley, Brentwood, Essex, D. Cochrane Campbell, M.D., M.R.C.P., second son of the late Rear-Admiral Campbell, of Barbreck, Argyleshire.

HARRIS.—On the 7th inst., at Buckingham Lodge, Vansittart-road, Torquay, Surgeon-Major F. W. Harris, late Bombay Army, aged 62.

REID.—On the 13th inst., at Madeira-road, Streatham, Alexander William Watson Reid, Surgeon, Royal Navy.

WATSON.—On the 7th inst., Henry Watson, Surgeon, late of Plumstead, aged 84.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 14th, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Aug. 8	30·04	E.	74	67	121	90	64	..	Hazy
,, 9	30·00	E.	73	64	120	88	64	..	Hazy
,, 10	30·08	S.E.	67	65	113	84	63	·03	Raining
,, 11	29·93	S.E.	76	66	128	94	65	..	Hazy
,, 12	29·92	W.	73	68	119	84	65	·05	Cloudy
,, 13	30·00	W.	70	65	121	80	62	..	Cloudy
,, 14	29·99	N.W.	65	60	117	75	60	·01	Bright

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

BOGUS AMERICAN DEGREES.

THE following extract from *The Times*, a telegram from one of its correspondents, should be pondered by all who are concerned in either the purchase or the sale of bogus degrees:—"The defunct Medical University of Philadelphia, which has caused great annoyance and trouble by selling bogus diplomas, has reappeared. The English Consul at Philadelphia, Mr. Clipperton, states that he is in receipt of letters from various parts of Great Britain asking for information about the standing of the College, and to what extent its diplomas are accepted. The Government here has done all in its power to stop the illegal traffic in diplomas, by cancelling the charter of the College and closing it. If impostors are still committing fraud upon the public through agencies in England, they should be prosecuted by the British authorities."

THE letter of Dr. Cullingworth arrived too late for insertion in our present issue.

Dr. Strahan (Northampton).—Yes.

ARREST OF DEVELOPMENT OF THE THIRD LEFT RIB IN A FŒTUS.

To the Editor of THE LANCET.

SIR,—The following case, being one of rather uncommon occurrence, may be of interest to some of your readers.

On August 2nd I attended J. H——, aged thirty-four years, in her first confinement. Labour commenced on Aug. 1st at 7 P.M., and delivery took place at 4 A.M. next day. On the birth of the infant I noticed a depression in the left mammary region, which, on careful examination, I found to be caused by the arrest of development of the third left rib three-quarters of an inch from the sternum, the free end of the rib being smooth and rounded off, and drawn in at each inspiration. There is a small nodule on the sternum, in the position of the third costal cartilage. The child, a female, is of full term, measures nineteen inches and a half, weighs six pounds, and is in all other respects well developed and healthy.—I am, Sir, yours faithfully,

Shipley, Yorks, Aug. 9th, 1884. D'ARCY B. CARTER, M.R.C.S.

Mr. B. F. Solymos, C.E.—Undoubtedly, one of the chief objects aimed at in wearing flannel or merino next the skin is defeated when the undervest is lined with linen or cotton.

Mr. D. Wilson (Glasgow).—We know nothing of the nostrum.

OPIUM CULTIVATION IN RAJPUTANA.

IN consequence of the extension of irrigation works in the province of Rajputana, in India, and the opening of the Rajputana-Malwa Railway, rendering the produce easy of access to Bombay, poppy cultivation has been considerably on the increase within the last two or three years.

Mr. Rea Edwards.—The paper is marked for insertion. After use the block will be at the disposal of the author.

PREVENTION OF "HARVEST BUMPS."

To the Editor of THE LANCET.

SIR,—Hygienic treatment, as a matter of course, is an important factor in preventing attacks of "harvest bumps"—e.g., the clothes of such children should be destroyed, or be exposed to a temperature of at least 150° F., by steaming them, ironing them over with a sufficiently hot iron, or boiling them.

For external application Calvert's or Macdougal's carbolic acid soap or ointment, or as a lotion in the following proportions, will be found beneficial: Crystallised carbolic acid, two drachms; spirits of rosemary, an ounce; rectified spirit, half an ounce; distilled water to make up a lotion to six ounces, with which the parts are to be sponged night and morning. Sulphur may be used in the form of vapour baths or fumigations, or the simple or compound ointment of sulphur of the Pharmacopœia with some lavender water. Mercury may also be employed as simple mercurial ointment, or by fumigations with cinnabar, or in solution of the bichloride, in the proportion of two or three grains to an ounce of water, to which some alcohol has been added. The application of sulphurous acid as recommended by Mr. Startin seems beneficial: "A warming-pan containing live coals sprinkled with sulphur should be put between the clothes till the sulphur is consumed. A damp napkin held before the mouth will prevent the sulphurous acid irritating the lungs." It seems better, however, to submit the bedding &c. which cannot be boiled for some hours to a temperature between 250° and 300°, in a disinfecting chamber or oven. The quickest way of curing and destroying the parasite is to immerse the patient, leaving his head free, in a gaseous bath of sulphurous acid, made by burning twelve drachms of sulphur in a suitable apparatus. Whilst in the bath the patient's clothes should be baked, so that in half-an-hour he is cured of his irksome pains, and is made free from risk of reinfection.

Internally the administration of iodide of potassium in small doses, according to age, &c., seems to render the system unsuitable for any further development of the acarus autumnalis.

I am, Sir, yours obediently,

Woburn-place, W.C., Aug. 9th, 1884. C. S. TAYLOR, M.D., B.Sc.

To the Editor of THE LANCET.

SIR,—I think if Dr. FOX will use a few quassia chips in the morning bath, and sponge the exposed parts of the person with a weak infusion of the quassia once or twice daily, he will find there is complete protection from almost all the annoying insects found in our fields. Even mosquitos fight shy of a person so protected.

I am, Sir, yours faithfully,

St. Leonard's-on-Sea, Aug. 12th, 1884. JOHN J. PENNY.

METHOD OF TREATING SPRAINS.

To the Editor of THE LANCET.

SIR,—Allow me to remark that in the new method of treating sprains by Mr. Thos. L. Shearer, as published in your last issue, the efficacy lies probably and solely in the compression applied through the clay to the injured joint by the rubber roller bandage, and by no means in a peculiar discutient property of the clay itself, which could be omitted without the least inconvenience. Thus modified, the method has been contrived and applied, I think for the first time, by M. Marc Sée, who has described it as a kind of compound treatment, combining rest with rubbing or massage, in the *Revue de Chirurgie* of Jan. 10th, 1884. If Mr. Shearer will try the rubber roller bandage alone, without adjunction of clay, he will have undoubtedly the same good results.

I am, Sir, yours truly,

Rue Marignan, Paris, Aug. 9th, 1884. DAVID DININ.

Dr. G. de Courcy Morris.—The case is one in which the fee should be divided equally.

Mr. Rankin's letter arrived too late for notice this week.

"VACCINATION *v.* SMALL-POX."

To the Editor of THE LANCET.

SIR,—The following case corroborates the article in your issue of the 2nd inst., headed "Vaccination *v.* Small-pox." Some years ago, during an epidemic of small-pox in Liverpool, I vaccinated an infant a fortnight old. The vaccination was successful; but when the infant was three weeks old the mother took small-pox, and although she continued to suckle the child, it did not take the disease. I remember that during the same epidemic I vaccinated an infant a quarter of an hour old, small-pox being in the neighbourhood. The vaccination was successful.

I am, Sir, yours truly,

JOHN SINCLAIR, M.R.C.S.

Mount Pleasant, Liverpool, Aug. 4th, 1884.

Mr. W. F. Macdonogh.—The works needed for examinations for the posts of inspector of nuisances, surveyor, and medical officer of health necessarily differ materially in some respects. There are, however, certain points which they have in common, and these will be found in (1) Dr. Wilson's Handbook of Hygiene, (2) either Mr. Bailey Denton's or Mr. Baldwin Latham's Sanitary Engineering, and (3) the Annotated Model Bye-laws issued by Messrs. Knight and Co., official publishers to the Local Government Board. The official orders relating to the duties of inspector of nuisances and medical officer of health should also be carefully studied.

Messrs. Burroughs and Wellcome.—Application might be made to the Director-General of the Army Medical Department.

"PRICKLY HEAT."

To the Editor of THE LANCET.

SIR,—In a communication on this subject which appeared in your issue of Aug. 2nd the writer relates a case which occurred in his practice in this country, and suggests a remedy. Thinking that perhaps others may have met with similar cases, and having seen and treated a large number of cases on board ship in India and other parts of the East, I beg to offer the result of my experience. I have never seen a well-defined case in England; and when it does occur it would be most likely to do so in those who have resided in tropical countries, and have been victims to this disease during their sojourn there. There is no doubt that one attack predisposes to another. The disease is ushered in by a feeling of heat or glow over the body, but principally in the skin of the back, and in a few hours numerous little raised spots appear, which tingle and prick (one cannot call it itching) in a most excruciating manner. No one who has not seen a bad case, or had the sensation to a certain extent in his own person, would believe what torment it gives rise to. I have seen on board ship an Englishman, half maddened with this torture, fall on his knees in his cabin, and in all seriousness pray that he might die. It is almost always worse on the back than anywhere else, and does not often affect the extremities. It attacks men who have been years in hot climates quite as much as those who have just gone out for the first time, but I have never met with a case in a native. Now, as regards the remedy. The treatment is always more or less unsatisfactory, and everything that can be thought of has been tried in various cases. Clothing has, of course, much to do with it. In England, where the temperature is so various and uncertain, perhaps a very thick woollen jersey may be a good thing; but in India, where one can tell one day almost to a degree what the temperature will be the next, and where rainy and dry seasons alternate with such regularity, I used to find that woollen or flannel next the skin almost invariably aggravated the irritation. I always advised the wearing of an ordinary white calico shirt next the skin, and patients almost always found this more comfortable than anything else. The two remedial measures which I found more efficacious than any others were a bath twice a day in fresh water with ordinary washing soda dissolved in it, in the proportion of about a pound to four gallons; and the same bath without the soda, but with the addition of carbolic soap, with which the body should be thoroughly well washed. Various measures are recommended, and I have tried many of them; but I found those mentioned the best. I generally met with more cases of it in the wet season than in the dry, and more in Calcutta and the Eastern side of India than in Bombay. It is particularly prevalent in the months of September and October, when the hot sun is pouring its rays down upon ground saturated with recent and long-continued rain.

I am, Sir, yours truly,

E. C. CRIPPS, M.R.C.S., L.R.C.P.Lond.
Late Surgeon P. & O. S. N. Co.

Cirencester, Aug 7th, 1884.

THE POWER OF ELECTRICITY.

To the Editor of THE LANCET.

SIR,—The following instance of the power of electricity to excite muscular action may be worthy of note.

Two months ago I was in attendance upon a woman in confinement. At the termination of the labour the child was born apparently lifeless, and for twenty-five minutes failed to make a single inspiration, although artificial respiration and other means were used to restore animation. In the meantime I sent to my home for my electric battery, and immediately on applying the induced current to the chest and back I had the satisfaction of seeing muscular contraction take place in the muscles of the chest walls, and very soon the circulation was re-established and breathing became regular. The child lived for two days, and then died of cyanosis. Considering that the suspension of animation resulted from failure of the heart's action, and that the blood was still possessed of vitality, I hoped that by starting the heart into action and driving onward the blood I might bring back the child to animation. The event proved that there was sufficient muscular irritability in the heart to allow of the efficient use of electricity. This case seems to show that in cases of suspended animation, such as drowning, we may assist the use of artificial respiration by employing electricity more frequently than is generally done. It was evident to those of us who saw the case that the child would never have breathed again had not the battery been used.

I am, Sir, yours truly,

C. H. HUXTABLE, M.D., M.Ch.

Auckland, New Zealand, June 4th, 1884.

"LUNACY NOT INCREASING."

AT length the facts are forcing themselves on the intelligent consciences of the official mind, and even being made apparent to the public. The *Daily News* of Aug. 13th says:—"The Commissioners in Lunacy observe in their recent report that the large annual addition to the number of insane persons under care has produced an impression that insanity itself is much on the increase. An examination of the figures which the report presents, however, shows that the apparent increase is almost entirely due to accumulation of chronic cases of the pauper class; so that, as the Commissioners observe, the community at large does not appear, from the official statistics, to be any more liable than formerly to be attacked by this terrible malady." *Magna est veritas et prævalebit.*

P.R.C.S. and other correspondents.—The circular enclosed would seem to be of the ordinary trading character, and appears offensive on account simply of its being sent by an undertaker.

TREATMENT OF VARICOSE VEINS.

To the Editor of THE LANCET.

SIR,—In a leading article of THE LANCET of May 3rd, 1884, it is stated that the only radical cure for varicose veins known is excision of a portion or the whole of the vein. I have waited to see if anybody at home would correct this statement. There being no such correction in your journal up to May 17th, the last number received here, I feel it incumbent on me to draw your attention to an article in THE LANCET of June 6th, 1874, p. 791, where it is stated that M. Simon of Verviers has used the perchloride of iron with great success. I can confirm this statement; for, ever since, now ten years, I have employed the same with unfailing success in varicose veins of the legs. The solution recommended by M. Simon is nearly the same as the liq. ferri perchlor. B.P. (the milder solution), which I use. The only modification I substitute is absorbent lint for flannel, as used by M. Simon, for compress; nor do I wring the pledgets dry, as recommended by him, but leave them moist; it seems to me to act more readily. I have just succeeded in curing an old gentleman aged seventy years, who has been suffering from varicose veins of the right leg for forty years. For the last few months the pain has been excruciating, the patient getting little or no sleep, and being totally incapacitated for business. He had a large ulcer extending from the external malleolus along the outer edge of the tibia half round the back of the leg, considerably larger than the palm of the hand. I drew pieces of strapping across the ulcer in the ordinary way, then applied pieces of absorbent lymph two or three inches long, slightly rolled, soaked in the solution of perchloride of iron, and applied them as compresses lengthwise on the veins. They were supported *in situ* by a bandage of thin flannel, called "domet," or "dumet," instead of the ordinary flannel, as it adapts itself better to the limb. This is reapplied every day for a week; then every other day. In a fortnight the varices had all disappeared, and the veins could be felt as hard wires under the skin. In six weeks the ulcer was healed, and the patient is now able to take long walks and attend to his business as accountant. I think the same may be applied to varicocele, though strapping would probably be required to retain the compresses *in situ*.

I am, Sir, yours truly,

J. H. H. LEWELLIN, M.R.C.S.

Prahran, Victoria, Australia, June 30th, 1884.

IS DEAFNESS A BARRIER TO PRACTICE?

To the Editor of THE LANCET.

SIR,—I cherish the hope that the kind sympathy of those afflicted like myself will prompt them to reply to this letter. My case is as follows. I possess a very important high-class practice, am devoted to my profession, and have a young family dependent upon me for their education and start in the world. I have not attained my fiftieth year, but am becoming very deaf, and have now some difficulty in hearing anyone unless the voice is raised. The aurists tell me I am suffering from chronic aural catarrh, which is a progressive disease, and my experience of the last few months has unmistakably revealed its progressive nature. Now, it would be a satisfaction for me to know if, in the experience of any of your readers, deafness, even so bad as to necessitate the use of a trumpet, would entirely debar one from practice. When a man is thoroughly established, and has the confidence and friendship of his patients, would deafness such as I refer to tend to make them lose faith in him, and so gradually forsake him? Of course, I take for granted that a competent assistant would be required in all cases requiring auscultation. If you, Mr. Editor, or any of your readers, could tell me of a case where a man with very considerable deafness has yet continued to hold the confidence of his patients, it would be a comfort to me and an encouragement to hold on and persevere. If, on the other hand, it is to be my ruin professionally, then, devoted as I am to my calling, and little able, and still less inclined, at my time of life to launch out into another business or profession, I must look the evil in the face, and, for the sake of my children, commence the world, as it were, anew.

I am, Sir, yours truly,

July 12th, 1884. CONSTANT READER.

ERRATUM.—The reference to a book in Mr. Charles Hawkins's letter in our last number should have been "at page *153*," and not 193.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Lady John Manners; Dr. D. Dinin, Paris; Mr. C. Macnamara; Mr. D. Newman, Glasgow; Mr. Macdonogh; Mr. J. W. Taylor, Birmingham; Surgeon-Major Galbraith; Mr. Allen; Mr. Lewellin, Prahran; Mr. Carter, Shipley; Mr. Blaney, Bombay; Dr. C. S. Taylor, London; Surgeon-Major Duncan, Benares; Dr. G. de C. Morris, London; Mr. Sinclair, Liverpool; Messrs. Burroughs and Wellcome, London; Mr. C. Foster, Leeds; Mr. Blaxsan, Edgware; Messrs. Baker and Co., Philadelphia; Mr. Richardson, Birkenhead; Mr. May, Crayford; Professor Tuson; Mr. Gurner, London; Mr. Booth, London; Mr. Squire, Tavistock; Dr. Thomas, Glasgow; Mr. Nicholas, Great Yarmouth; Mr. Bagshaw, Salford; Mr. Keetley, London; Messrs. Fraser and Co., London; Messrs. Smith and Son, Dublin; Dr. George Harley, London; Dr. Jay, Slough; Dr. Scully, Stuttgart; Mr. Husband, Leeds; Messrs. Ferris and Co., Bristol; Dr. Beaman; Dr. C. Hewett, London; Mr. Hughes, Holyhead; Messrs. Smith and Sons, Birmingham; Dr. Lawrence, Chepstow; Mrs. Bird, Liverpool; Mr. T. Jones, Manchester; Dr. Harkin; Mr. Tuson; Messrs. Boake and Co.; Dr. Glynn Whittle, Liverpool; Dr. Harkin, Belfast; Dr. C. T. Ewart, Salisbury; Dr. Fitzgerald, Folkestone; Messrs. Mayer and Meltzer, London; Dr. Rogers, London; Mr. Oakley; Mr. Radley, London; Dr. Philipson, Newcastle-on-Tyne; Mr. G. Meadows, Hastings; Mr. Taylor, Chester; Dr. Thomas, Sheffield; Mr. Nicholson, Hull; Dr. Cullingworth, Manchester; Dr. Strahan, Northampton; Dr. U. Pritchard, London; Dr. Manson, Hong Kong; Dr. Illingworth, Clayton-le-Moors; Mr. Roughton, Liverpool; Mr. Carter, London; Mr. T. C. Eager, Woking; Medicus; Vigilans; A. B. C.; Beta; Constant Reader.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Vand, Maidstone; Dr. Mockson, Matlock; Messrs. Richardson and Co., Leicester; Mr. Fletcher Northwich; Dr. Austin, Laugharne; Dr. Ash, Kensington; Messrs. Gale and Co., London; Mr. Gray, Rugely; Messrs. Byway and Co., Manchester; Mr. Knesbone, Bedford; Mr. Dawe, Taunton; Messrs. Burgoyne and Co., London; Messrs. Woolley and Sons, Manchester; Mr. Andrew, Stockport; Mr. Jordan, Birmingham; Mr. Long, Sherborne; Mr. Messer, London; Dr. Mitchell, Brockley; Mrs. Gurry, Malvern; Mr. Dyer, Gateshead; Messrs. Lumleys, London; Mr. Denny-Silverstone; Mr. Kent, Middlesbrough; Mr. Sloane, Manningham; Mr. Walton, Blackpool; Mr. Twyford, Hanley; Mr. Bramwell, Newcastle-on-Tyne; Mr. Gibson, Bromley; Mr. Cantley, Ripley; Mr. Moore, Yeovil; Mr. Dobbinson, Bishop Auckland; Miss Wade; Mr. Saunders, Manchester; Mr. Hogg, London; Mr. Hill, Beeralston; Mr. Fort, Oldham; Messrs. Heywood and Co., Manchester; Dr. Miller, Arbroath; Mr. Jones, London; Mr. Roberts, Alfreton; Mr. Saunders, Great Yarmouth; Mr. Cash, London; Mr. Barnes, Newport; R. L.; Zeta; K. W.; J. W.; Poplar; Nemo, Salford; L.R.C.P., Leeds; Matron, Monkwearmouth; W. C. O., Bath; Surgeon; Phidias; Veritas, Birmingham; M.D., Halstead; A. C.; F.S.A.; S. C., Warrington; Gamma, Folkestone; J. B., Ryde; J. B., Manchester; X., Liverpool; M., Bolton; J. B., Walton-on-the-Naze; Medicus Hull; Lady Superintendent, Cambridge; Alpha, Huddersfield; X.Y.; Lady Superintendent, Ascot.

Portsmouth Evening Mail, Liverpool Echo, Calcutta Englishman, Liverpool Weekly Courier, Liverpool Weekly Post, Pioneer, New York Herald, Isle of Man Times, Weekly Dispatch, Invergordon Times, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—4 P.M. Bradshawe Lecture: "Pathological Relations of the Absorbent System."

Tuesday, August 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, August 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Thursday, August 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday August, 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, August 23.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Half a Page	2	15	0
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The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.